MARK 710

TELEDYNE TAC

Reliability in Automation

10 FORBES ROAD
WOBURN, MASS. 01801
(617) 935-5400 U.S.A.
CABLE: TACWOBURN
TELEX 94-9440

TELEDYNE TAC

TITLE: PRESSURE REGULATOR ASSY

ML 111753

COVER SHEET

DRN. DA Silber DATE 1-14-80 | CHK. RLP DATE 6-1-81 | APPR. IH DATE 6/3/81 | SHEET ONE OF 2

NEXT ASSY. NO.	NEXT ASSY. TITLE	PRODUCT	ML VERS.
ML/D111741	BASE LEVEL 1	MARK 710	A

REV.	E.C. NO./CHANGE DESCR.	DATE	BY
1	PRC 710-1	1/24/80	R.G.P.
2	PRC 710-81	3/12/80	DAS
3	PRC 710-190	5/27/80	TMC
4	PRC 710-387	9/23/80	TMC
5	PRC-710-294	10/24/80	DAS
6	PRC 710-548	12-29-80	IRM
7	ECR 4245	5-28-81	DAS

TT-ML-1/1

TELEDYNE TAC

TITLE: PRESSURE REGULATOR ASSY

ML 111753

MATERIAL LIST

SHEET 2 OF 2

ITEM	PART NUMBER	PART DESCRIPTION	A QTY.	QTY.	QTY.	QTY.	QTY.	REFERENCE:
	A111753-A	PRESSURE REGULATOR	X					
1	B112792	BRACKET, REGULATOR	1					
2	122895	REGULATOR – 25 PSI	1					
3	116007	TEE $\frac{1}{8}$ MPT x $\frac{1}{8}$ FPT x $\frac{1}{8}$ FPT	1					ALT - IMPERIAL EASTMAN 25VJ02 TEE + 115888 NIPPLE
4								
6	121509	ADAPTER, $\frac{1}{8}$ MPT TO $\frac{1}{8}$ BARB	3					ALT- 115809
7								
9	B111752	PNEUMATIC SYSTEM SCHEMATIC	REF					SCHEMATIC
12	825405	TAPE, TEFLON, PIPE THD	AR					

1 2 3 4 5 6 7 8

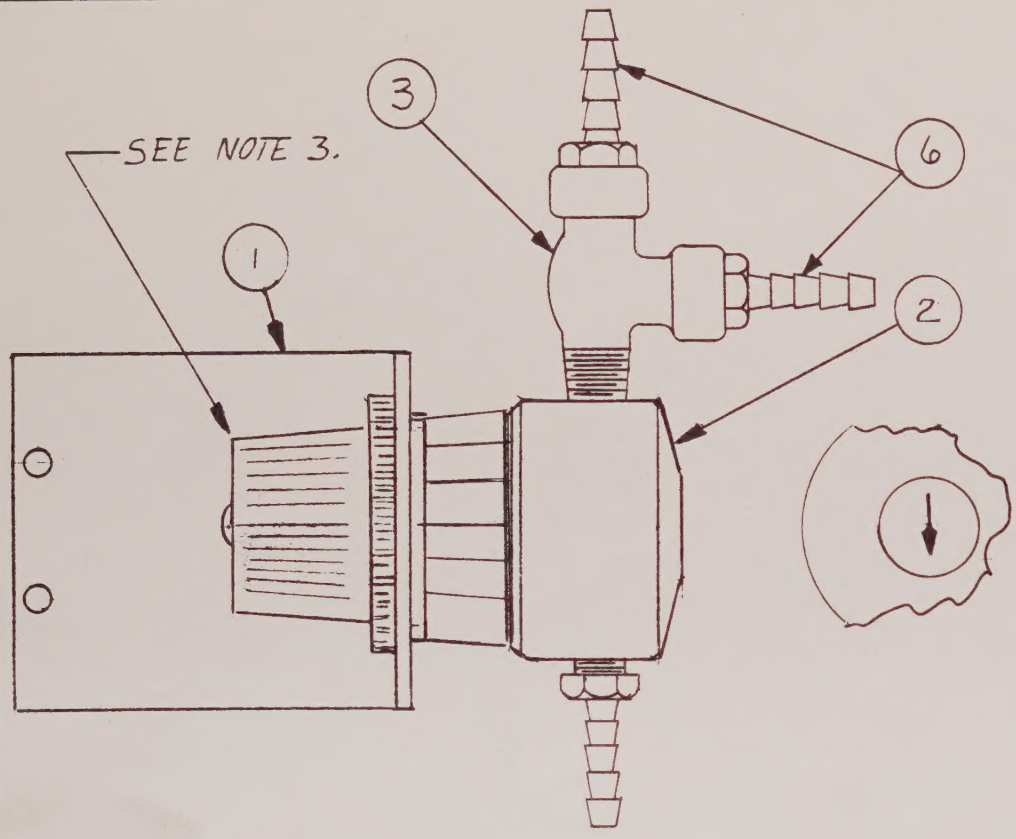
TT-ML-2/1

Digitized by the Internet Archive
in 2025

https://archive.org/details/manualsplus_06536

S.F.

REV.	E.C. NO. / CHG. DESCR.	DATE	BY
1	PRC 710-1	1/24/80	P.G.B.
2	PRC 710-81	3 12 80	SAS
3	PRC 710-190	5/27/80	IRR
4	PRC-710-387	9/23/80	TMM
5	PRC-710-294	10/24/80	TDM
6	PRC-710-548	12-29-80	TMM
7	ECR 4245	5-28-81	DAS



1 USE (12) ON ALL A JOINTS.
2. ORIENT (3) AS SHOWN.
3. AT COMPONENTS ASSY AREA, ROUGH SET AT 11 ± ½ PSIG. FINAL ADJUSTMENT REQ'D DURING MACHING CALIBRATION. UNAUTHORIZED TAMPERING MAY DAMAGE AIR BEARINGS.

THIS DRAWING HAS BEEN FURNISHED BY TELEDYNE TAC. THE INFORMATION AND KNOWHOW THEREON MAY NOT BE USED OR THE DRAWING REPRODUCED WITHOUT THE WRITTEN PERMISSION OF TELEDYNE TAC. ALL REPRODUCTIONS, IN WHOLE OR IN PART, INCLUDING VENDOR'S SHOP DRAWINGS MUST BEAR THIS STATEMENT OR MAKE REFERENCE TO IT.

DRN. Jr Sullen DATE 1-16-80

CHK. TLP DATE 6-1-81

APPR. IH DAS DATE 6/2/81

LIMITS UNLESS SPECIFIED:
.XX = ± .010 | FRACT. = ± 1/64 | ANG. = ± 30 MIN.
.XXX = ± .005 | MM. = ± | SURF. =

DO NOT SCALE DRAWING OR PRINT.
REMOVE ALL BURRS, SHARP EDGES.

SCALE

FIRST USED ON: ML/D111741

PRODUCT: MARK 710

DRAWING TITLE: PRESSURE REGULATOR ASSY

MATERIAL: ML 111753

TREAT./FINISH: / /

DWG. NO. A 111753

SHEET / OF /

TELEDYNE TAC
WOBURN, MASSACHUSETTS 01801 U.S.A.

TT-A/1

MARK 710

VOLUME II

SECTION II

LEVEL 2 ASSEMBLY

Level 2 Electrical Assembly appears in VOLUME I, SECTION III.

MARK 710

VOLUME II

SECTION III

LEVEL 3 ASSEMBLY

	MATERIAL LIST	ASSEMBLY
Base Assembly Level 3	ML111743	D111743 (8 SHEETS)
Carriage Assembly	ML111487	D111487
Carriage Support Assembly	ML112211	A112211
Z Stage Housing Assembly	ML110057	D110057 (3 SHEETS)
Y Axis Air Bearing	ML110025	C110025
Chuck Assembly	ML109980-A	D109980-A
Upper Chuck Assembly	ML111535	C111535
Y-Drive Block Assembly	ML110406	C110406
Bridge Assembly, Standard	ML111378	D111378 (2 SHEETS)
Optics Mount Assembly	ML110438	D110438
Theta Plate Assembly	ML110333	D110333

TELEDYNE TAC

TITLE: BASE ASSY— LEVEL 3

ML111743

COVER SHEET

DRN.	DATE	CHK.	DATE	APPR.	DATE
IRR	2/12/81	R.H.	6-16-81	PMW	6/5/81

SHEET ONE OF 9

NEXT ASSY. NO.	NEXT ASSY. TITLE	PRODUCT	ML VERS.
ML/D111744	BASE ASSY-LEVEL 4	MARK 710	A

REV.	E.C. NO./CHANGE DESCR.	DATE	BY
24	PRC 710-595	2/12/81	IRR
25	PRC 710-653	3-4-81	IRR
26	PRC 710-652	3-6-81	IRR
27	PRC 710-677	3-13-81	IRR
28	PRC 710-723	4-29-81	IRR
29	PRC 710-752	5-14-81	RT
30	4245	6-4-81	IRR
31	4284	9-14-81	RH

TELEDYNE TAC

TITLE: BASE ASSY—LEVEL 3

ML 111743

MATERIAL LIST

ASSEMBLY VARIATIONS → | A | | | | |

SHEET 2 OF 9

ITEM	PART NUMBER	PART DESCRIPTION	QTY.	QTY.	QTY.	QTY.	QTY.	REFERENCE:
	1 2 3 4 5 6 7 8 D111743A	BASE ASSY— LEVEL 3	X					
1	ML/D111742A	BASE ASSY—LEVEL 2	1					
2	ML/B111635A	SURFACE PLATE ASSY	1					
3								
4	ML/D111487A	CARRIAGE ASSY	1					
5	ML/D110057A	Z-STAGE HSG ASSY	1					
6	ML/C110406A	Y-DRIVE BLOCK ASSY	1					
7	ML/D110514A	TERMINAL ASSY	1					
8								
9	ML/A112211A	CARRIAGE SUPPORT ASSY	1					
10	ML/D111378A	BRIDGE ASSY	1					
11	ML/D110438A	OPTICS MOUNT ASSY	1					
12	ML/C111834A	Y ENCODER (MOD)	1					
13	C114885	ENCODER SCALE MOD	1					
14								

1 2 3 4 5 6 7 8

TELEDYNE TAC

TITLE: BASE ASSY — LEVEL 3

ML 111743

MATERIAL LIST

ASSEMBLY VARIATIONS → | A | | | | |

SHEET 3 OF 9

ITEM	PART NUMBER	PART DESCRIPTION	QTY.	QTY.	QTY.	QTY.	QTY.	REFERENCE:
15	D114389	SUPPORT, MONITOR	1					
/	109361	CASTING, MONITOR SUPPORT	/					QTY 1
17								
18	B110098	CLAMP, BEARING	1					
19	B110128	GUIDE, CARRIAGE	1					
20	C112923	SHAFT - Z DRIVE	1					
21	B110248	P.C.B. MOUNT	1					
22	B110829	ARM, ENCODER	1					
23	B109682	SHAFT, Y DRIVE	1					
24	B114172	WEAR PAD — ENCODER CABLE	1					
25								
26								
27	C110135	COVER, FRONT	1					
28	C110409	SHIELD, CABLE	1					
29	C110653	COVER, ENCODER	1					
30	C113011	BAND — OPTICS MOUNT	1					
31	C110010	AIR BEARING PLATE	1					
32								
33	A110115	BEARING CAP, Y AXIS	1					
34	A110112	DISC, SENSOR	1					

1 2 3 4 5 6 7 8

TELEDYNE TAC

TITLE: BASE ASSY — LEVEL 3

ML 111743

MATERIAL LIST

ASSEMBLY VARIATIONS → A

ITEM	PART NUMBER	PART DESCRIPTION	QTY.	QTY.	QTY.	QTY.	QTY.	REFERENCE:
35	A110123	RETAINER, SURFACE PLATE	2					
36	A110110	SLEEVE, Y SHAFT	1					
37	A110122	CATCH MOUNT	1					
38	A110828	ARM MOUNT, ENCODER	1					
39	A113452	LABEL - DO NOT ADJUST	1					
40	A114135	SHIM PAD	2					
41								
42	122062	BEARING, THRUST	2					
43	123574	WASHER, THRUST	4					
44								
45	B113784	CLAMP & GUIDE	1					
46	116195	CATCH, NYLATCH	1					(RECP.)
47								
48								
49	123695	MARKER, CABLE - - - LETTER C	A/R					(1 CARD PER 72 MACHINES)
50	123696	MARKER, CABLE - - - LETTER F	A/R					(1 CARD PER 72 MACHINES)
51								
52								
53	118105	MOTOR, DC & TACH	1					ALT. 118106
54								

TELEDYNE TAC

TITLE: BASE ASSY— LEVEL 3

ML 111743

MATERIAL LIST

ASSEMBLY VARIATIONS → | A

SHEET 5 OF 9

ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
55								
56	123302	BEARING, Y SUPPORT	1					BARDEN SR6 SS3
57	115141	BEARING, MATCHED PAIR	1					(Y DRIVE)
58								
59	120378	COLLAR	2					
60								
61								
62	117659	COUPLING, Y DRIVE	1					
63								
64	118535	CLAMP, PRESS ON HOSE	3					
65								
66	119913	STANDOFF 3/8 LG	3					
67	119904	STANDOFF 5/8 LG	4					
68	119933	STANDOFF 1 LG	6					
69	119928	STANDOFF 7/8 LG	2					
70								
71								
72	123345	SPACER, SHAFT 3/8 O.D. X .315	1					(Z SHAFT REAR)
73	123333	SPACER, SHAFT 3/8 O.D. X .094	1					(Z SHAFT FRONT)
74								

1 2 3 4 5 6 7 8

TELEDYNE TAC

TITLE: BASE ASSY—LEVEL 3

ML 111743

MATERIAL LIST

SHEET 6 OF 9

ITEM	PART NUMBER	PART DESCRIPTION	ASSEMBLY VARIATIONS → A	QTY.	QTY.	QTY.	QTY.	QTY.	REFERENCE:
75	825346	CATERPILLAR GROMMET 2694, H.H. SMITH	1 1/2"						
76									
77	118131	CLAMP, CABLE	4						
78									
79	825209	EPOXY	A/R						
80									
81	825388	LUBRIPLATE	A/R						
82	825007	GEAR LUB.	A/R						
83	825377	REINFORCED TAPE 1" WIDE	A/R						
84	825441	FOAM TAPE	A/R						
85									
86	825442	SILICONE ADHESIVE	A/R						
87									
88	825376	ADHESIVE, THREADLOCK	A/R						
89									
90	1/4-28 NYLOK	NUT, SELF-LOCKING, HEX	1						(SPECIAL)
91									
92	10-32 X 1 1/8 LG	SCR, BUTTON HEAD	3						(SPECIAL)
93									
9A									

1 2 3 4 5 6 7 8

TT-ML-2/1

TELEDYNE TAC

TITLE: BASE ASSY—LEVEL 3

ML 111743

MATERIAL LIST

ITEM	PART NUMBER	PART DESCRIPTION	A QTY.	QTY.	QTY.	QTY.	QTY.	SHEET 7 OF 9 REFERENCE:
	1 2 3 4 5 6 7 8	ASSEMBLY VARIATIONS →						
95	6-32 X 1/8 LG	SCR, B.H.M.	2					
96	4-40 X 1/4 LG		8					
97	6-32 X 1/4 LG		1					
98	6-32 X 3/16 LG		2					
99	6-32 X 3/4 LG		3					
100	8-32 X 5/8 LG	SCR, B.H.M.	2					
101								
102								
103								
104	6-32 X 1/2 LG	SCR, SOC. HD.	2					
105	6-32 X 3/8 LG		2					
106	6-32 X 5/8 LG		2					
107	8-32 X 7/16 LG		2					
108	8-32 X 1/2 LG		4					
109	8-32 X 1 LG		4					
110	8-32 X 1 1/4 LG		2					
111	10-32 X 5/8 LG		2					
112	1/4-20 X 5/8 LG		2					
113	1/4-20 X 1 1/4 LG		2					
114	10-32 X 3/4 LG	SCR, SOC. HD.	4					

1 2 3 4 5 6 7 8

TT-ML-2/1

TELEDYNE TAC

TITLE: BASE ASSY — LEVEL 3

ML 111743

MATERIAL LIST

ASSEMBLY VARIATIONS → A

SHEET 8 OF 9

ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
115								
116								
117								
118	123145	SET SCREW, SOC. DRIVE, BRASS TIP 6-32 X 1/4 LG	2					
119	8-32 X 3/16 LG	SET SCREW, HEX DRIVE	4					
120	8-32 X 1/2 LG		4					
121	10-32 X 3/8 LG		3					
122								
123								
124								
125	#8	WASHER, FLAT	6					
126	#1/4	WASHER, FLAT	1					
127								
128								
129	#10-32	NUT, HEX	3					
130	#1/2-13	NUT, HEX	2					
131								
132								
134								
135								

1 2 3 4 5 6 7 8

TELEDYNE TAC

TITLE: BASE ASSY — LEVEL 3

ML 111743

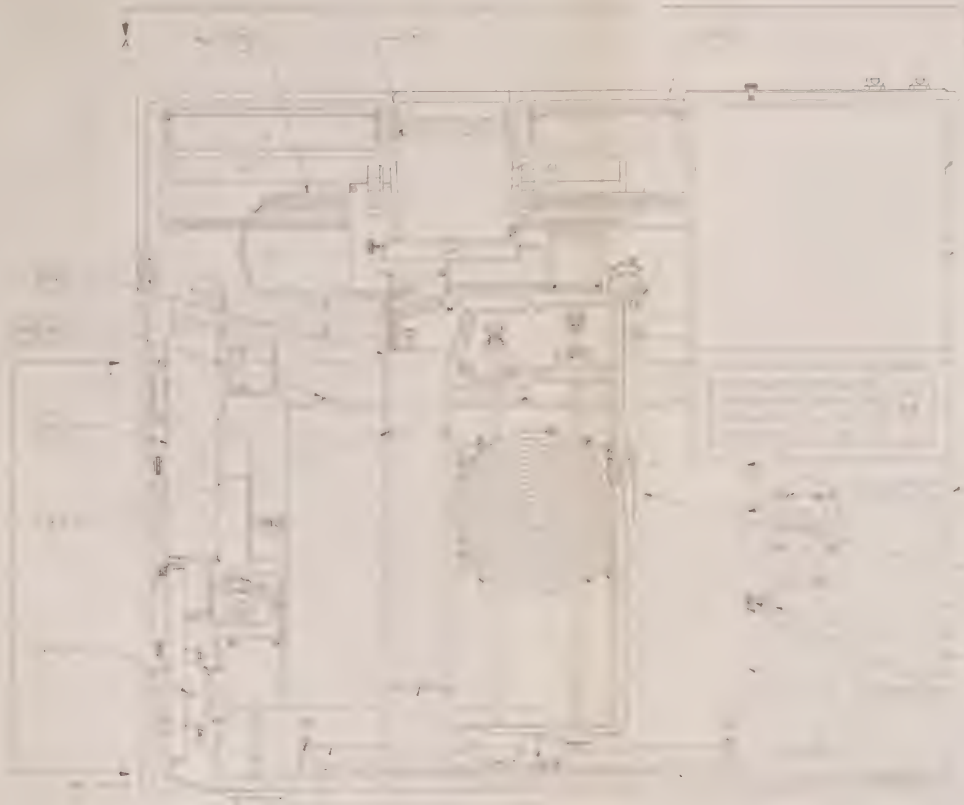
MATERIAL LIST

ASSEMBLY VARIATIONS → A

SHEET 9 OF 9

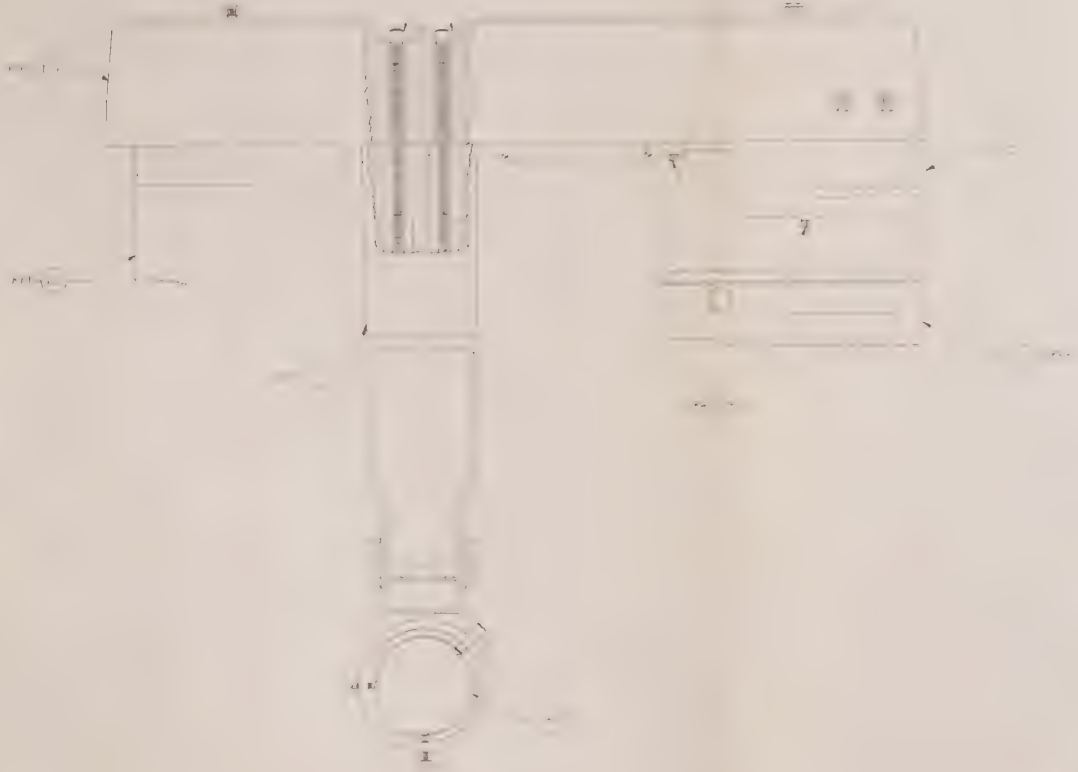
ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
136	ML/D111407A	X-ENCODER MOD	REF					
137	ML/C111182A	PNEUMATIC ASSY	REF					
138								
139	C110010	PLATE, AIR BEARING	REF					
140								
141	M2010-600	WAY	REF					
142								
143								
144								
145								
146	#10-32 X ½ LG	SCR, SOC. HD.	REF					
147								
148								
149								
150	A112797	BEARING ALIGN TOOL	REF					
151								
152	B113487	ECCENTRIC WRENCH	REF					
153								
154								
155								

1 2 3 4 5 6 7 8



TELEDYNE TAC

BASE ASSY—LEVEL 3

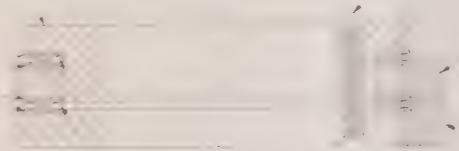


TELEDYNE TAC

BASE ASSY — LEVEL 3

D

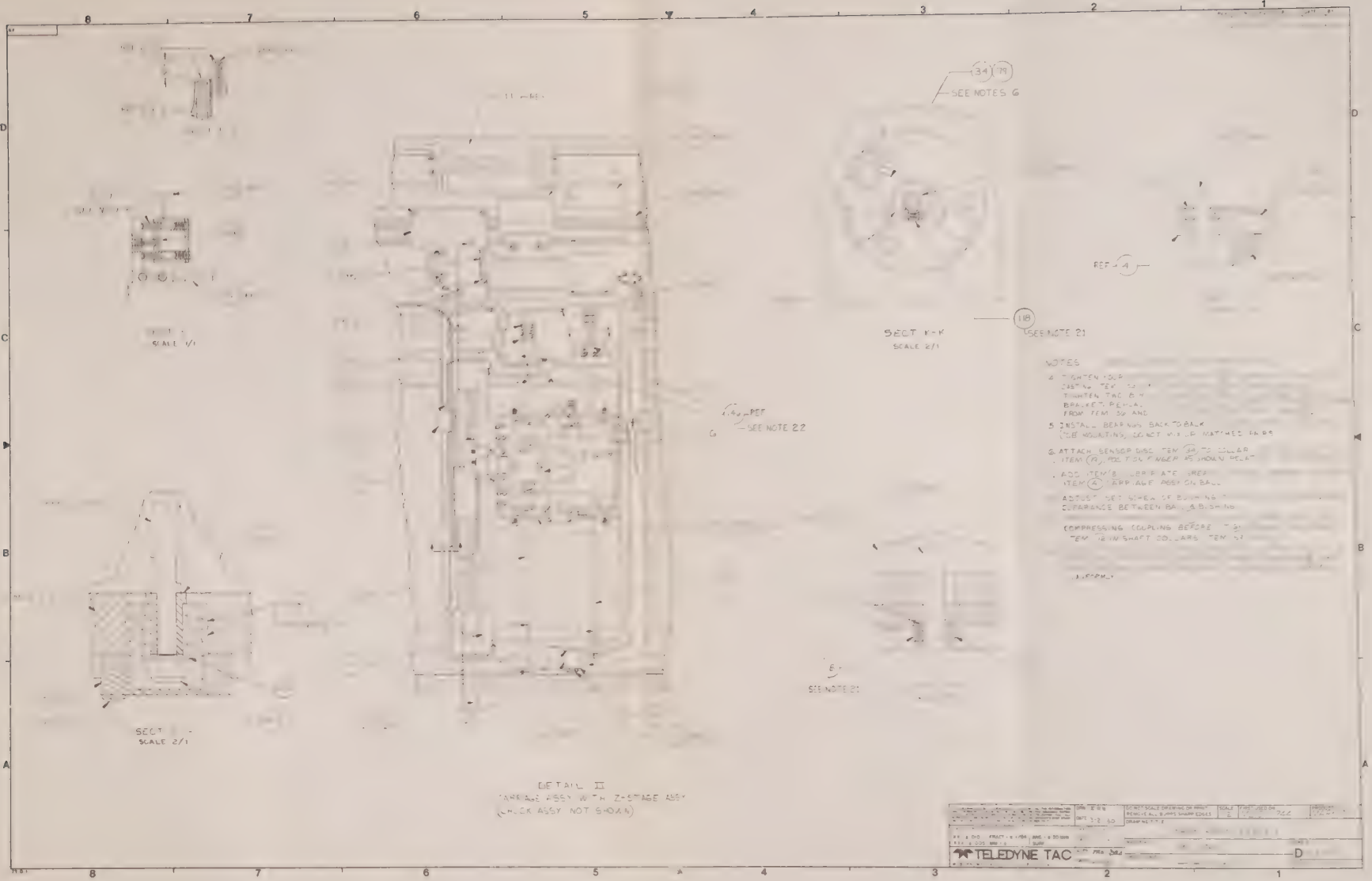
DETAIL I
TERMINAL ASSY (SHOWN IN OPEN POSITION)

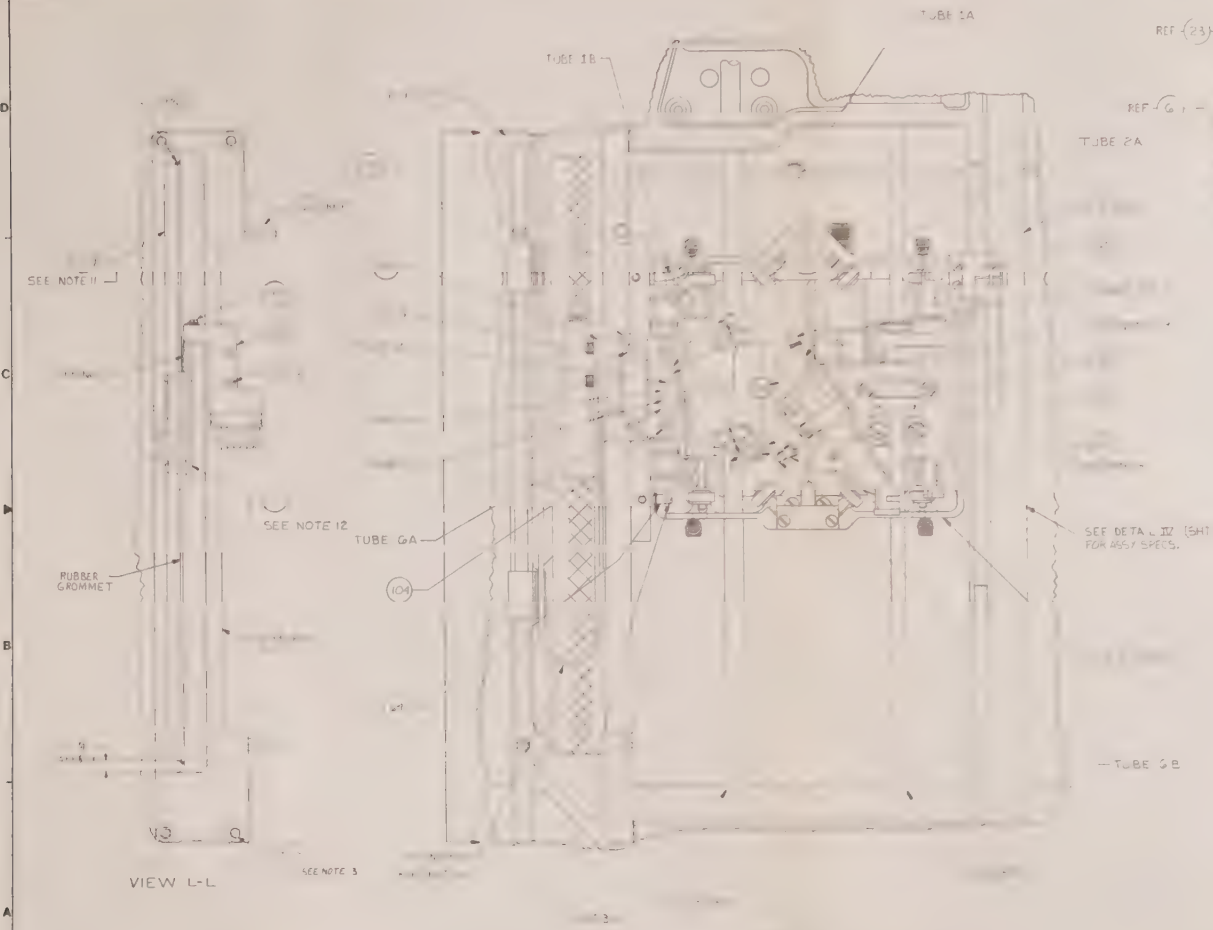


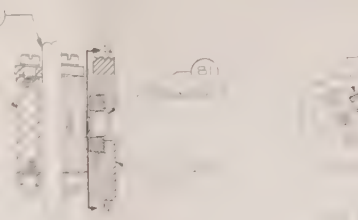
2 APPLY EPOXY GLUE
.5 ON TOP AREA OF
FRONT ITEM 27
3 TIGHTEN #2-56 SOC. SUFFICIENTLY
ASSEMBLY WITHOUT BOWING
26 TIGHTEN LOCKING SCREW ON REGULATOR HANDLE
BEFORE APPLYING ITEM 39 LABEL.

39 SEE NOTE 26

	BARE ASSY-LEVEL 3	
TELEDYNE TAC	M 1725	D


SEE NOTES G
SECT K-K
SCALE 2/1
SEE NOTE 21
REF
SEE NOTE 22
SEE NOTE 21
SCALE 1/1
SECT
SCALE 2/1
NOTES
TIGHTEN SCREW
TIGHTEN TAC B-N
BRACKET, PEHLA
FROM ITEM 30 AND
INSTALL BEARINGS BACK TO BACK
ATTACH SENSOR DISC ITEM 30 TO COLLAR
ITEM (A) APPLICABLE ASSY ON BALL
ADJUST SET SCREW OF BUSHING
COMPRESSING COUPLING BEFORE
ITEM 12 IN SHAFT COLLARS ITEM 5
DETAIL II
AIRBEARING ASSY WITH Z-STAGE ASSY
(CHUCK ASSY NOT SHOWN)
TELEDYNE TAC
D





NOTES: (ADD'L NOTES ON OTHER SHTS)

9 ADD ITEM (B), LUBRICATE GREASE TO BALL OF ITEM 6, THRUST BLOCK ASSY BEFORE INSERTING INTO COLLAR ON ITEM 5, Z STAGE ASSY, ADJ TO OBTAIN .0001 CLEARANCE BETWEEN BALL & COLLAR.

. ITEM 137 PNEUMATIC ASSY TUBING TERMINATES AS FOLLOWS:
- TUBE 1A AIR TO 1B TEE AIR
- TUBE 2A AIR TO 2B COUPLING FOR FINGER CYLINDER
- TUBE 3A VACUUM TO 3B Y AT BREAK
- TUBE 4A VACUUM TO FINGERS - - LABEL
- TUBE 5A VACUUM TO THUMB TOP - - ABL
- TUBE 6A VACUUM TO 6B Z STG M + AIR BRG VAC M

. FROM ITEM (13) ENCODER SCALE ASSY, REMOVE YAW AIR BRG WHICH HOLDS THE SCALE CASTING AND INSTALL AS FOLLOWS
- A) MOUNT GLASS SCALE FROM ENCODER IN RELIEF SIDE OF ITEM 4 AIR BEARING PLATE (REF) ITEM 3 PART OF ITEM 4, APPROX
- B) PLACE SCALE IN SLOT, POSITION AS SHOWN.
- C) INSERT RUBBER GROMMET FROM ENCODER IN GROOVE ON TOP OF G ASSY APPLY TO EACH END ITEM (96), SILICONE ADHESIVE AS SHOWN.

12. MOUNT ITEM (12) Y-ENCODER ASSY ON ITEM 3 ENCODER GLASS SCALE ATTACH SPRING AS SHOWN ON ITEM 22 ENCODER ARM WITH ITEM 97 8MM SCR AND PLACE END OF SPRING IN SMALL HOLE ABOVE ITEM 97 8MM SCR ON ITEM 22 ENCODER ARM.

13. WHEN TIGHTENING ITEM (144) 500 HD SCR TO ITEM 4 CABLAGE ASSY TIGHTEN TO 20± 4 LB.

PLACE HOSE CLAMP ITEM (24) OVER HOSE WITH FLANGE ENT. CLT. THEN PRESS HOSE FULLY ONTO FITTING, THEN SLIDE CLAMP PAST BARB OF FITTING TO SECURE HOSE. SET ITEM 6 Y-DRIVE BLOCK ASSY TO SLIP AT 7± 1 LB TRACTION IN +Y AND -Y DIRECTIONS, AFTER LEAD THE SHAFT AND APPLYING 4 DROPS OF GEAR LUB ITEM (32), SPREAD UNIFORMLY.

DETAIL III
DETAILED Z STAGE ASSY WITH RISER PLATE STANDING UP, ROUTING OF AIR & VACUUM HOSING

SEE SHTS. 6, 7 & 8 FOR ASSY SPECS

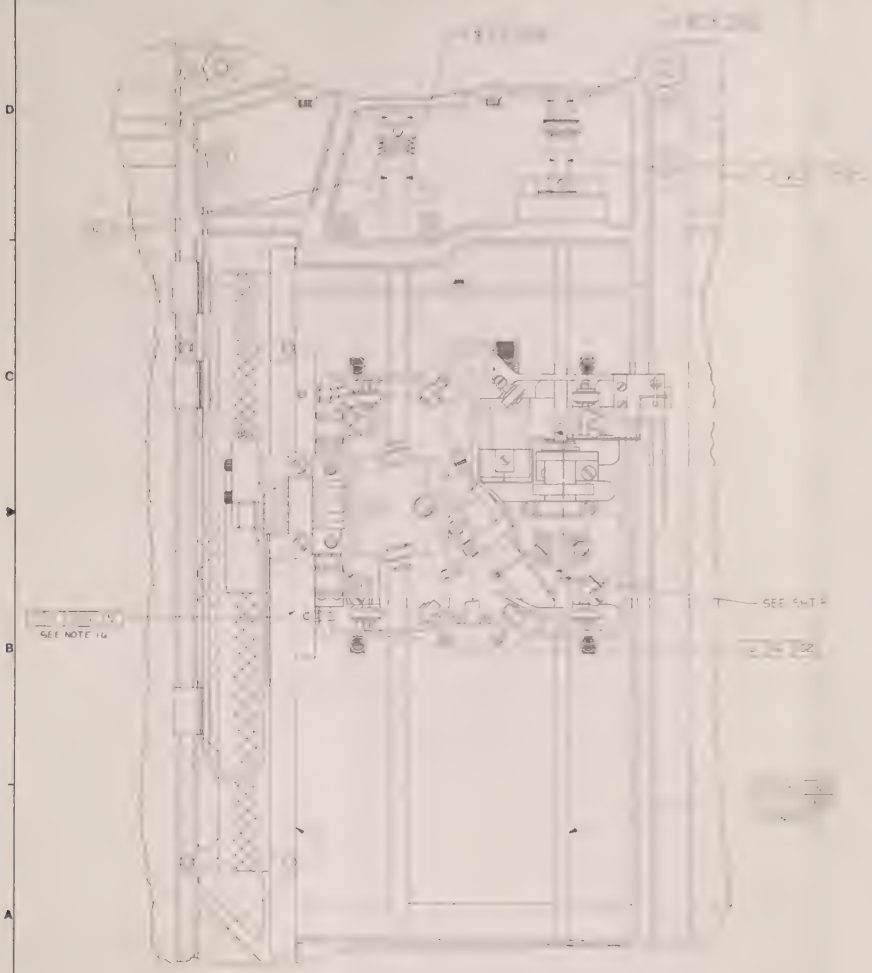
DRN. ZDE DATE 6-12-87	DO NOT SCALE DRAWING REMOVE ALL BURRS SHARP EDGES PART	SCALE FIRST VERSION 1/2	PRODUCT WEAR -10
UNITS UNLESS SPECIFIED .X ± 0.01 FRACT ± 1/64 .XXX ± 0.005 ANG ± 30 MIN SURF	CHK DATE 6-19-87	BASE ASSY-LEVEL 3	
TELEDYNE TAC	APPR DATE 6/19/87	MATERIAL ML1:743	DWG NO D1 743
		FINISH/FINISH	SHEET 5 OF 8

VIEW Q-Q
(BRIDGE ASSY NOT SHOWN)

TELEDYNE TAC

BASE ASSY - LEVEL 3

D



DETAIL IV
(NOT SHOWN)

ADJUSTMENT SEQUENCE

REQUIREMENT	CONDITIONS	
1)	KEEP 6 PLANAR	
4) ADJUST BEARING ECCENTRICS TO CENTER TOOL (.50 ± .001)	Z SHAFT REMOVED	
5) Z SHAFT ⊥ F & G MOTOR SHAFT ⊥ K	Y SHAFT REMOVED & 4 SCREWS INTO Z STG HSG ALL LOOSE	
6) ASSEMBLE Y NUT & Y DRIVE SHAFT		
7) M ⊥ F & G		
8) AIR BRG ⊥ G Z STAGE HSG ⊥ G .005 MIN CLEARANCE BETWEEN Z SHAFT & HSG BRG FLANGES	MTG SCREWS LOOSE, AIR (60-.3 PSIG) AND VACUUM ON. CLEARANCE REQ'D ALL 4 CORNERS OF SHAFT OVER ENTIRE LENGTH OF SQUARE SECTION.	A-B B-3
9) MOTOR SHAFT ⊥ J		

NOTES: (ADD'L NOTES ON OTHER SHTS)

5. APPLIES TO BOTH CYLINDRICAL SECTIONS
16. THIS SPEC OBTAINED BY ALLOWING AIR BEARING TO FLOAT WITH BOTH Y AND Z SHAFTS IN PLACE BEFORE TIGHTENING SCREWS.
17. THIS TOLERANCE APPLIES TO PRELIMINARY ADJUSTMENT ONLY. OPTICAL TECHNIQUES REQ'D FOR FINAL ADJUSTMENT.
24. MINIMUM Z-AXIS AIR-BEARING LIFT-OFF .0002 IN (MEASURED WITH SHAFTS REMOVED)
25. MINIMUM Y-AXIS AIR-BEARING LIFT-OFF .0001 IN (MEASURED WITH Y AIR BEARINGS DISCONNECTED FROM Z STAGE HSG ASSY)

TELEDYNE TAC

BASE ASSY - LEVEL 3

D

TELEDYNE TAC

TELEDYNE TAC

TITLE: CARRIAGE ASSY

111487

COVER SHEET

DRN.	DATE	CHK.	DATE	APPR.	DATE	SHEET ONE OF
		RJH	6-16-81	PMW DAS	6/15/81	4

NEXT ASSY. NO.	NEXT ASSY. TITLE	PRODUCT	ML VERS.
D111743	BASE ASSY - LEVEL 3	MARK 710	A

REV.	E.C. NO. / CHANGE DESCR.	DATE	BY
1	RE-COPIED WITH CHANGES - NO DWG	1-14-80	DA Albe
2	PRC 710-1	V23/80	RLP
3	PRC 710-21	2-7-80	DAS
4	PRC 710-91	2-11-80	IRR
5	PRC 710-47	3/12/80	DAS
6	PRC 710-110	3/20/80	IRR
7	PRC 710-201	5/12/80	IRR
8	PRC 710-283	6/25/80	DAS
9	PRC 710-402	10-3-80	DM
10	PRC 710-492	11-21-80	IRR
11	PRC 710-652	3-6-81	IRR
12	PRC - 710-723	4-28-81	DM
13	4245		
14	4275	8-11-81	RJH

TT-ML-1/1

TELEDYNE TAC

TITLE: CARRIAGE ASSY

ML 111487

MATERIAL LIST

ASSEMBLY VARIATIONS → | A | | | | |

SHEET 2 OF 4

ITEM	PART NUMBER	PART DESCRIPTION	QTY.	QTY.	QTY.	QTY.	QTY.	REFERENCE:
	D111487A	CARRIAGE ASSY	X					
1	J108450	CARRIAGE, MACHINING	1					
	108449	CARRIAGE, CASTING	REF					
3								
4	A114682	REST BUTTON - ADJ. PLATE	2					
5	B110117	ECCENTRIC	2					
6	B110119	BALL RETAINER	1					
7	ML/B111003	Z STAGE MOTOR ASSY	1					
8	ML/C110912	SENSORS - Z SHAFT	1					
9	B110120	ENCODER MOUNT	1					
10	A110114	INTERRUPTER	1					
11	A110116	Z-BEARING MOUNT	1					
12	B114598	BEARING PLATE	1					
13	B114597	BEARING ADJ. PLATE	1					
14	A114599	BEARING ADJ. BLOCK	1					

1 2 3 4 5 6 7 8

TT-ML-2/1

TELEDYNE TAC

TITLE: CARRIAGE ASSY

ML 111487

MATERIAL LIST

ASSEMBLY VARIATIONS → A

SHEET 3 OF 4

ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
15	119898	STAND OFF M/F 3/8 LG	2					
16	825330	SLOTTED HD. SHOULDER SCR	2					
17	A 119600	SPACER – ADJ. PLATE	2					
18	A125030	SHAFT SPACER	2					
19	123219	MOTOR CLEAT	4					Alt. Berg SM-3
20	117230	COUPLING, Z DRIVE	1					(1" O.D.)
21	825445	BEARING, BALL, SHIELDED	4					(X-RAIL)
22	120188	BEARING	2					
23								
24	6-32 X 1/2 LG	SCR, B. HD.	2					
25	10-32 X 3/8 LG	SCR, B. HD.	4					
26	8-32 X 1/2 LG	SCR, SOC. HD	2					
27	4-40 X 1/2 LG	SCR, SOC. HD.	2					
28	4-40 X 3/8 LG	SCR, SOC. HD.	6					
29	6-32 X 1/2 LG	SCR, SOC, HD.	3					
30	10-32 X 1/2 LG	SCR, SOC. HD.	8					
31	10-32 X 3/4 LG	SCR, SOC. HD.	1					
32	825596	NUT, HEX. LOCK ESNA NO. 7JNE-040	2					
33	#10	WASHER, FLAT	1					
34	#10	WASHER, LOCK	4					

1 2 3 4 5 6 7 8

TELEDYNE TAC

TITLE: CARRIAGE ASSY

ML 111487

MATERIAL LIST

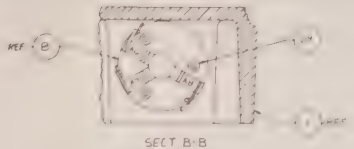
ASSEMBLY VARIATIONS → | A | | | | |

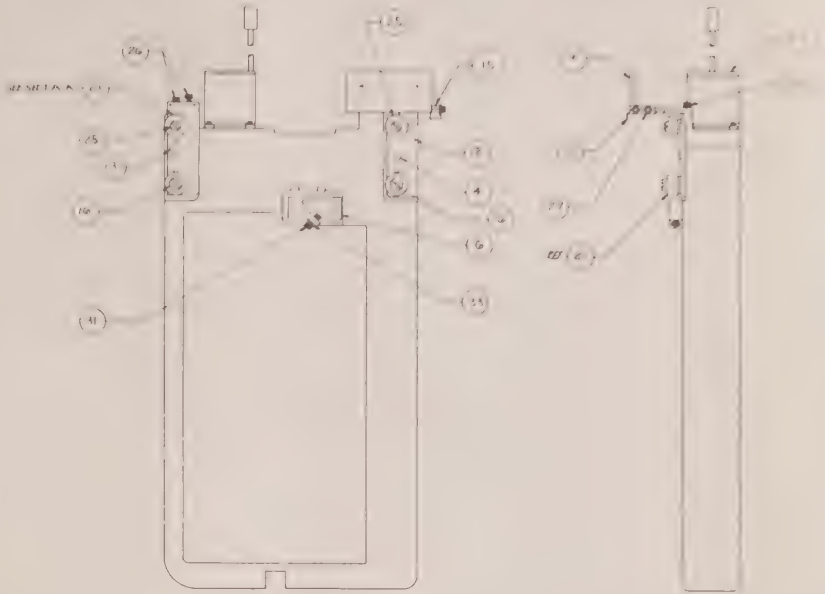
SHEET 4 OF 4

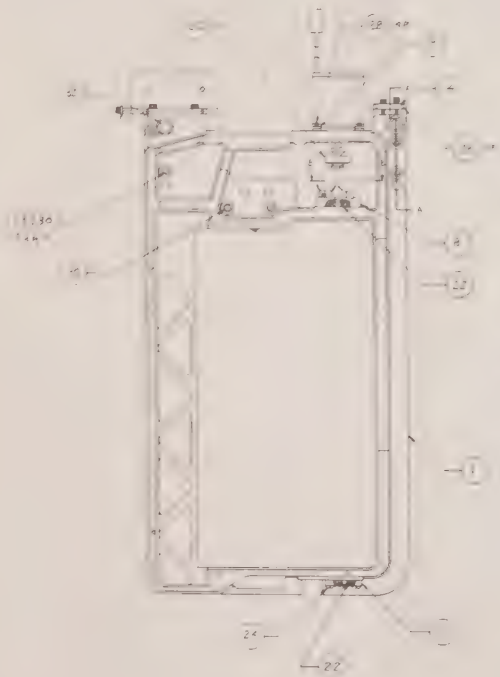
ITEM	PART NUMBER	PART DESCRIPTION	QTY.	QTY.	QTY.	QTY.	QTY.	REFERENCE:
35	825376	ADHESIVE, THREAD LOCK	Ae					
36								
37								
38	B113487	ECCENTRIC WRENCH	Ref					
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								

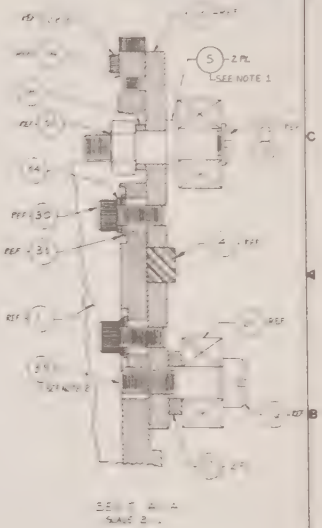
1 2 3 4 5 6 7 8

TT-ML-2/1









NOTES:
1. ADJUST ITEM 5 ECCENTRIC AT HIGHEST ASSY.
2. ADD ITEM 35 LOCTITE TO ITEM 30 SOC HD. SCR AND TO ITEM 16 SLOTTED HD SHOULDER SCR. TO THREADS ONLY." DO GET LOCTITE ON ITEM 21 BEARING."

REV	E.C.N./CHG. DESCR	DATE	BY
12	REL 12	4-26-91	CLA
13	4245	6-4-91	[illegible]
14	4275	8-8-91	[illegible]

TELEDYNE TAC
WOBURN, MASSACHUSETTS 01801 U.S.A.

DRN [illegible]
DATE 4-27-90
CHK [illegible]
DATE 4-15-91
APPR [illegible]
DATE 4/15/91

DO NOT SCALE DRAWING OR PRINT
REMOVE ALL BURRS SHARP EDGES
SCALE 12 SHEET SIZE D MLD111743
PRODUCT MAX 710

UNLESS OTHERWISE SPECIFIED
[illegible]

DRAWING TITLE
CARRIAGE ASSY

MATERIAL MLD 487
TREATMENT
SIZE D
DWG. NO. 487
SHEET 1 OF 1

TELEDYNE TAC

TITLE: CARRIAGE SUPPORT ASSY

ML 112211

COVER SHEET

DRN.	DATE	CHK.	DATE	APPR.	DATE	SHEET ONE OF 2
IRR	3-11-80	[illegible]	6-16-81	PMW	6/15/81	

NEXT ASSY. NO.	NEXT ASSY. TITLE	PRODUCT	ML VERS.
ML/D111743	BASE ASSY - LEVEL 3	MARK 710	A

REV.	E.C. NO./CHANGE DESCR.	DATE	BY
1	PRC 710-86	3-11-80	IRR
2	4245	6-3-81	IRR

TT-ML-1/1

TELEDYNE TAC

TITLE: CARRIAGE SUPPORT ASSY

ML 112211

MATERIAL LIST

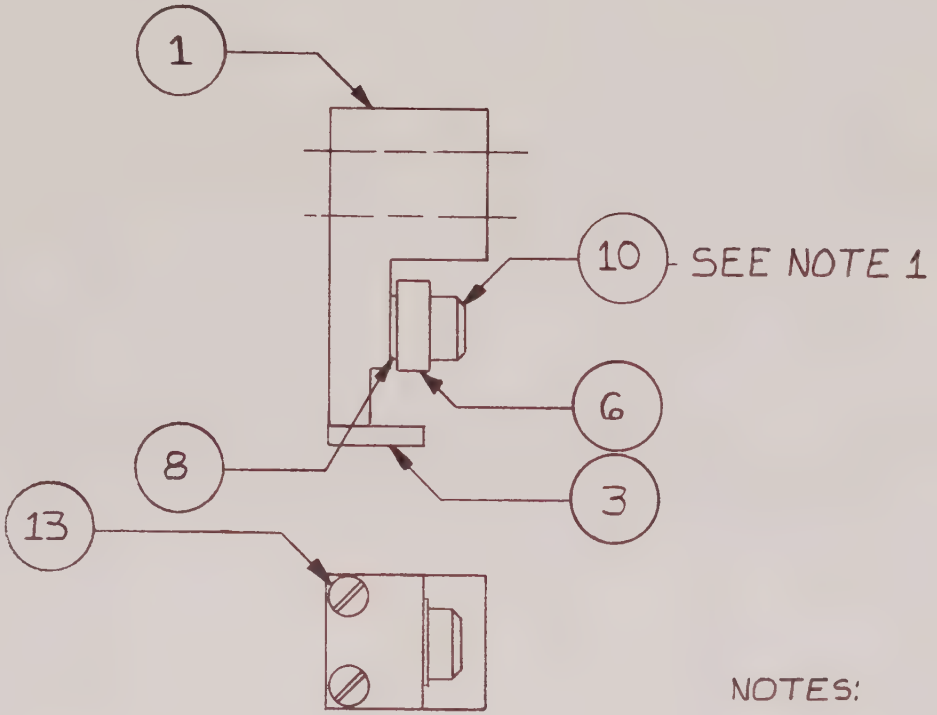
ASSEMBLY VARIATIONS → A

ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
	1 2 3 4 5 6 7 8 A112211A	CARRAGE SUPPORT ASSY	X					
1	B110118	BEARING MOUNT	1					
2								
3	A110405	WEAR PAD	1					
4								
5								
6	120188	BEARING	1					ALT-123292
7								
8	123332	SHAFT SPACER .375 O.D. X .031 THK	1					
9								
10	122845	SHOULDER SCREW #10-32	1					
11								
12								
13	4-40 X 1/4 LG	F.H. SCREW	2					
14	825384	ADHESIVE, THREAD LOCK	AR					

1 2 3 4 5 6 7 8

S.F.

REV.	E.C. NO. / CHG. DESCR.	DATE	BY
1	PRC 710-86	3/11/80	IRR
2	4245	6-3-81	IRR



NOTES:

1. LOCK THREADS WITH ITEM (14).

THIS DRAWING HAS BEEN FURNISHED BY TELEDYNE TAC. THE INFORMATION AND KNOWHOW THEREON MAY NOT BE USED OR THE DRAWING REPRODUCED WITHOUT THE WRITTEN PERMISSION OF TELEDYNE TAC. ALL REPRODUCTIONS, IN WHOLE OR IN PART, INCLUDING VENDOR'S SHOP DRAWINGS MUST BEAR THIS STATEMENT OR MAKE REFERENCE TO IT.

LIMITS UNLESS SPECIFIED:

.XX = ± .010 | FRACT. = ± 1/64 | ANG. = ± 30 MIN.
.XXX = ± .005 | MM. = ± | SURF. =

TELEDYNE TAC
WOBURN, MASSACHUSETTS 01801 U.S.A.

DRN. IRR
DATE 3-11-80
CHK. RJH.
DATE 6-16-81
APPR. PMW DOS
DATE 6/15/81

DO NOT SCALE DRAWING OR PRINT.
REMOVE ALL BURRS, SHARP EDGES.

SCALE 1/1

FIRST USED ON: ML/D111743

PRODUCT: MARK 710

DRAWING TITLE:
CARRIAGE SUPPORT ASSY

MATERIAL: ML112211

TREAT./FINISH:

DWG. NO. A 112211

SHEET 1 OF 1

TT-A/1

TELEDYNE TAC

TITLE: Z STAGE HOUSING ASSY

ML 110057

COVER SHEET

DRN.	DATE	CHK.	DATE	APPR.	DATE
IRR	1-8-80	R.J.H.	6-16-81	PMW	6/15/81

SHEET ONE OF 8

NEXT ASSY. NO.	NEXT ASSY. TITLE	PRODUCT	ML VERS.
ML/D111793	BASE ASSY - Level 3	MARK 710	A

REV.	E.C. NO./CHANGE DESCR.	DATE	BY
3	REV'D & REDRAWN	1-11-80	IRR
4	PRC 710-1	1/23/80	R.G.B.
5	PRC 710-16	1123180	IRR
6	PRC 710-43	2/11/80	DAS
7	PRC 710-30 Added Its 14, 93, 98	2/15/80	DAS
8	PRC 710-60	3/21/80	DAS
9	PRC 710-142	4/10/80	IRR
10	PRC 710-157	4/18/80	DAS
11	PRC 710-143	5/6/80	DAS
12	PRC 710-262	7-3-80	IRR
13	PRC 710-250	7/11/80	DAS
14	PRC 710-361	8-15-80	JDC
15	PRC 710-383	9-17-80	DAS
16	PRC 710-491	11/13/80	DAS
17	PRC 710-532	12-1-80	DAS
18	PRC 710-570	1-13-81	IRR
19	PRC 710-608	2-25-81	IRR
20	PRC 710-752	5-8-81	RT
21	EC 4245	6-2-81	IRR
22	EC 4279	8-14-81	JDC

TT-ML-1/1

TELEDYNE TAC

TITLE: Z STAGE HOUSING ASSY

ML 110057

MATERIAL LIST

ASSEMBLY VARIATIONS → A

ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
	D110057A	Z STAGE HOUSING ASSY	X					
1	ML/D109980A	CHUCK ASSY	1					
2	ML/C110025A	Y-AXIS AIR BRG ASSY	1					
3	ML/C110190A	BALL REDUCER ASSY	1					
4								
5	ML/A111754A	THETA MOTOR ASSY	1					
6								
7	ML/B110931A	THETA SENSOR BD	1					
8	ML/B110910A	ATC SENSOR ASSY	1					
9								
10	D110031	PLATE, RISER	1					
11								
12	D108946	Z STAGE HOUSING	1					
	108945	Z STAGE HSG (CASTING)	REF					
14	B112016	BUSHING, Y DRIVE	1					

TELEDYNE TAC

TITLE: Z STAGE HOUSING ASSY

ML 110057

MATERIAL LIST

SHEET 3 OF 8

ITEM	PART NUMBER	PART DESCRIPTION	ASSEMBLY VARIATIONS → A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
15	C112923	SHAFT, Z DRIVE	REF					
16	B110046	MOUNT, Z DRIVE BEARING	1					
17	B111348	MOUNT--CYLINDER	1					
18	B110044	PLATE, HOLD-DOWN	1					
19	B110043	CONNECTING ROD	1					
20	B110041	DRIVE MOUNT, SHAFT	1					
21	B110040	DRIVE MOUNT	1					
22	B110042	ECCENTRIC, Z DRIVE	1					
23	B111670	Y LIMIT BLADE	1					
24								
25								
26	A125.086	SHROUD, THETA SENSOR	1					
27	A111350	WEDGE--FINGER LIFT	1					
28	A110038	RISER DRIVE ARM	1					
29	A110039	ECCENTRIC, BEARING LOAD	2					
30	A110037	HOLD DOWN BEARING	4					
31	A110035	PIN, BEARING, CENTER FIXED	2					
32	A110034	PIN, BEARING, CENTER ADJ.	2					
34	A110032	PIN, BEARING, LOWER	4					
35	A110036	RISER (MATCHED SET OF 4 PCS)	1 SET					

1 2 3 4 5 6 7 8

TELEDYNE TAC

TITLE: Z STAGE HOUSING ASSY

ML 110057

MATERIAL LIST

ASSEMBLY VARIATIONS → A

ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
36	A111353	CYLINDER MOD.	1					
	115008	AIR CYLINDER	REF					
38	A112799	FILTER FITTING ASSY	1					
39	A112800	AIR FITTING REWORK	REF					
40	115764	HOSE FITTING	REF					QTY 1
41	121266	FILTER SCREEN	REF					QTY 1
42	121946	JEWEL, ORIFICE	8					
43								
44	123100	SPRING, EXT. ($\frac{2}{32}$ O.D. X $1\frac{1}{2}$ FL)	4					
45								
46	123289	BEARING, BALL	5					
47	123198	BEARING, BALL	4					
48	121110	BEARING, BALL	2					
49	121131	BEARING, BALL	1					
50	120180	BEARING, BALL	2					
51								
52								
53								
54	123771	RING, RETAINING	1					ALT: 5100-50 TRUARC OR 3100-50 INDUSTRIAL
55	825434	RING, RETAINING	16					ALT: 118592

TELEDYNE TAC

TITLE: Z STAGE HOUSING ASSY

ML 110057

MATERIAL LIST

ASSEMBLY VARIATIONS → A

ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
56								
57								
58	123320	SPACER, SHAFT (3/16 X .063)	1					
59	123332	SPACER, SHAFT (1/4 X .031)	2					
60	123348	SPACER, SHAFT (5/8 OD X .010)	2					
61								
62	119713	SPACER (1/8 LG)	2					
63								
64								
65	118957	BELT, TIMING	1					
66	123386	WASHER, BELLEVILLE .375 OD X .190 I.D.	1					ALT: 7Q9-12020 S.D.P
67	123783	WASHER, NYLON #10	1					ALT: YW-7 PIC
68	122865	WORM, 64 PITCH	1					
69								
70	122858	WHEEL, WORM	1					
71								
72	121187	TEE, HOSE BARB, 1/16	1					ALT: G-1 VALVE PLASTICS
73	825347	LACING CORD 731 H.H. SMITH	AR					
75	120079	COUPLING, HOSE BARB, 1/16	1					
76	805425	TIES, CABLE	1					ALT PANDUIT CORP

TELEDYNE TAC

TITLE: Z STAGE HOUSING ASSY

ML 110057

MATERIAL LIST

ASSEMBLY VARIATIONS → | A | | | | |

SHEET 6 OF 8

ITEM	PART NUMBER	PART DESCRIPTION	QTY.	QTY.	QTY.	QTY.	QTY.	REFERENCE:
77	115764	FITTING, HOSE	2					
78	825424	GASKET	3					
79	118535	CLAMP, PRESS ON HOSE	2					
80	825401	TUBING, TYGON	2FT					
81								
82	122231	SCR, SHOULDER #8-32	3					
83								
84	1/16 x 1/4 LG.	PIN, DOWEL	2					
85	4-40 x 1/4 LG	SETSCREW	2					
86	4-40 X 1/8 LG	SETSCREW	2					
87	6-32 X 1/8 LG	SETSCREW	1					
88	6-32 X 3/16 LG	SETSCREW	1					
89	6-32 X 5/16 LG	SETSCREW	2					
90	8-32 X 1/4 LG	SETSCREW	2					
91	8-32 X 1/8 LG	SETSCREW	1					
92	8-32 X 3/16 LG	SETSCREW	4					
93	6-32 x 1/4 LG	SCR, SOC. HD.	2					
94	6-32 X 5/16 LG	SCR, SOC. HD.	4					
95	6-32 X 7/16 LG	SCR, SOC. HD.	1					
96	8-32 X 3/8 LG	SCR, SOC. HD.	4					

1 2 3 4 5 6 7 8

TELEDYNE TAC

TITLE: Z STAGE HOUSING ASSY

ML 110057

MATERIAL LIST

ASSEMBLY VARIATIONS → A

ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
97	4-40 X 1/8 LG	SCR, SOC HD	1					
98	6-32 x 3/8 LG	SCR, SOC. HD.	1					
99	2-56 X 1/8 LG	SCR, B.H.M.	2					
100	4-40 X 5/16 LG	SCR, B. H. M.	2					
101	6-32 X 3/4 LG	SCR, B. H. M.	1					
102	6-32 X 7/16 LG	SCR, B.H.M.	1					
103	6-32 X 5/16 LG	SCR, B. H. M.	1					
104	6-32 X 1" LG	SCR, B.H.M.	2					
105								
106								
107								
108	4-40 X 5/16 LG	SCR, F.H.	2					
109	8-32 X 3/8 LG	SCR, F. H.	3					
110								
111	2-56 X 1/4 LG	SCR, F.H.	1					
112	2-56 X 3/8 LG	SCR, B.H.	8					
113	4-40 X 5/8 LG	SCR, B.H.	2					
114	6-32 X 3/8 LG	SCR, B.H.	11					
115								
116	825393	THREAD SEALANT	AR					

1 2 3 4 5 6 7 8

TELEDYNE TAC

TITLE: Z STAGE HOUSING ASSY

ML 110057

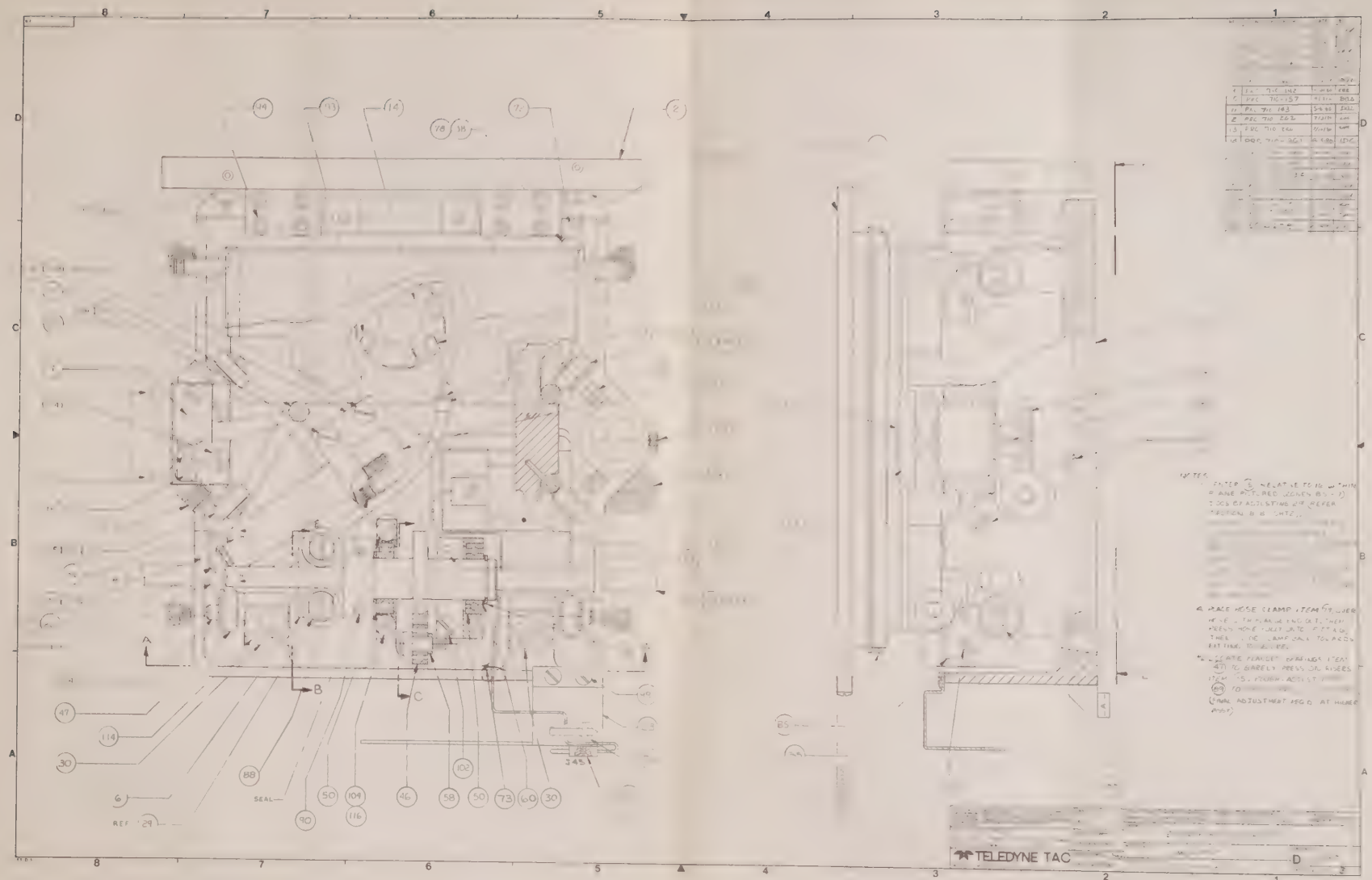
MATERIAL LIST

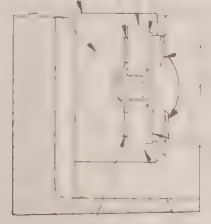
SHEET 8 OF 8

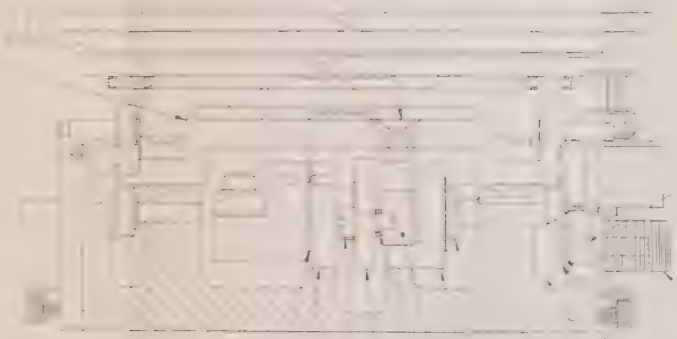
ITEM	PART NUMBER	PART DESCRIPTION	ASSEMBLY VARIATIONS → A	QTY.	QTY.	QTY.	QTY.	QTY.	REFERENCE:
117	825437	ADHESIVE (CRYANOACRYLIC)	AR						
118									
120									
122									
124	825436	APPLICATOR	REF						
125									
126	825435	GASKET	REF						QTY 2
127	115764	HOSE FITTING	REF						QTY 1

1 2 3 4 5 6 7 8

TT-ML-2/1

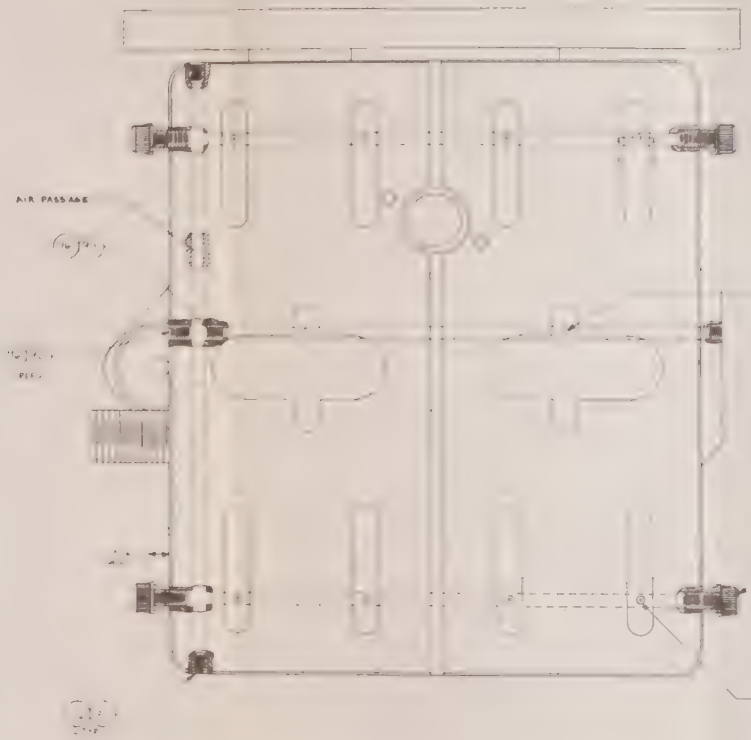

TELEDYNE TAC





TELEDYNE TAC

D



VIEW E-E

(42) RET

SEE NOTE 1

SECT F-F
INSTALL AS SHOWN (TYP)
(SEE NOTE 1)

NOTES:

1. INSTALL (42) AS FOLLOWS (SEE SECTION FF):
   A) APPLY (17) ADHESIVE TO INSIDE CORNER OF SHOULDER IN HOUSING
   B) INSERT (42) ORIFICE JEWEL, FLAT SIDE OUT, AS SHOWN
   C) TO VERIFY DOS (REF) ORIFICE (HOLE) IS NOT PLUGGED, INSERT WIRE DURING ASSEMBLY

DO NOT SCALE DRAWING OR PRINT
REMOVE ALL BURRS SHARP EDGES

SCALE 3/1 | PART OR ID NO. ML-C111743 | PROJECT MARK 710

DRAWING TITLE
2 STAGE HOUSING ASSY

MATERIAL ML 110057 | SIZE D | SHEET 1 OF 1

TELEDYNE TAC

TELEDYNE TAC

TITLE: Y-AXIS AIR BEARING ASSY

ML 110025

COVER SHEET

DRN.	DATE	CHK.	DATE	APPR.	DATE	SHEET ONE OF 3
R.B.	10/1/79	R.J.H.	6-16-81	PMH	6/15/81	

NEXT ASSY. NO.	NEXT ASSY. TITLE	PRODUCT	ML VERS.
D110057	ASSY "Z" STAGE HSG.	MARK 710	

REV.	E.C. NO./CHANGE DESCR.	DATE	BY
1	REDRAWN, NO CHGS	10/1/79	RB
2	PRC 710-1	1/22/80	R.G.B.
3	PRC 710-16	11/31/80	IRR
4	PRC 710-96	3/12/80	DOS
5	PRC 710-250	7/10/80	TMZ
6	PRC 710-323	12-23-80	IRR
7	PRC 710-652	3-9-81	IRR
8	EC 4245	6-9-81	DMS

TELEDYNE TAC

TITLE: Y-AXIS AIR BEARING ASSY.

ML 110025

MATERIAL LIST

ASSEMBLY VARIATIONS → A

SHEET 2 OF 3

ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
	C110025	Y-AXIS AIR BEAR ASSY	X					
1	C110027	Y-AXIS AIR BEARING	1					
2	B110026	AIR FRAME MTG. BLOCK	2					
3	A110024	MTG. BRKT. AIR FRAME	2					
4	115764	HOSE FITTING	1					
5	115772	GASKET	1					
6	115770	GASKET	2					
7	6-32 x 3/16	SET SCREW	6					
8	6-32 x 3/16	SOC. HD. CAP SCR.	4					
9	4-40 x 3/8	SCR. FLAT HD ALLEN	4					
10								
11	121996	JEWEL ORIFICE	A					
12	825384	ADHESIVE, THREAD LOCK	A_K					
13	A112799	FILTER FITTING ASSY	1					
14	A112800	AIR FITTING REWORK	Ref					

1 2 3 4 5 6 7 8

TELEDYNE TAC

TITLE: Y-AXIS AIR BEARING ASSY

ML 110025

MATERIAL LIST

ASSEMBLY VARIATIONS → A

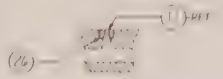
SHEET 3 OF 3

ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
15	115764	HOSE FITTING	REF					CLIPPARD 11752-2 QTY-1
16	121266	FILTER SCREEN	REF					LEE FSJA1300040A QTY-1
17								
18								
19								
20								
21								
22								
23								
24								
25								
26	825437	ADHESIVE (CRYANOACRYLIC)	AR					
27								
28								
29								
30								
31								
32								
33								
34								

1 2 3 4 5 6 7 8

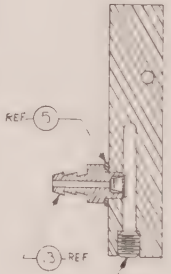
TT-ML-2/1

REV	ECR NO	DATE	BY
1	SEE ML	10/4/93	PB
2	PRC 710-1	11/22/94	PCB
3	PRC-710-1	2/28/95	JRG
4	PRC 710-1	3/27/95	JRG
5	PR 710-1	5/8/95	MC
6	PR 710-1	7/19/95	JRG
7	PR 710-1	8/15/95	JRG
8	EC 4245	9/8/95	JRG

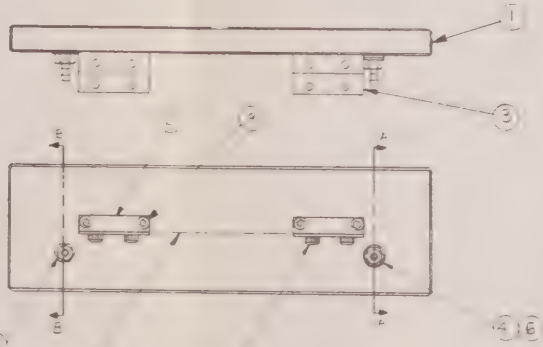


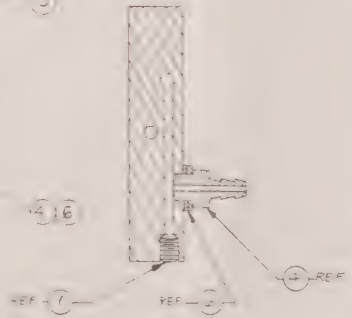
SECT C-C
SCALE 2/1
INSTALL AS SHOWN (TYP)
(SEE NOTE 2)

NOTES:
1. SEAL (7) WITH (12) G PL
2. INSTALL (11) AS FOLLOWS (SEE SEC C-C):
   A.) APPLY (24) ADHESIVE TO INSIDE CORNER OF SHOULDER IN HOUSING.
   B.) INSERT (11) ORIFICE JEWEL, FLAT SIDE OUT AS SHOWN
   C.) TO VERIFY .005 (REF) ORIFIES (HOLE) IS NOT PLUGGED INSERT WIRE DURING ASSEMBLY.



SECT B-B
SCALE 2/1





SECT A-A
SCALE 2/1

DO NOT SCALE DRAWING REMOVE ALL BURRS AND SHARP EDGES	DRN J. Sarachan	1/1		D110057	ML110057	MARK 710
	DATE	SCALE	VAR	ASSY. DWG	ML NO.	PRODUCT
LIMITS UNLESS OTHERWISE SPECIFIED: FRACTIONAL: ± 1/64 IN. ANGULAR: 30 MIN. DECIMAL: ± .005 IN. SURFACES: ✓	CHK [illegible] DATE 6-16-95	Y-AXIS AIRBEARING ASSY				
	APPR RMW DATE 6/15/95	TITLE				
TELEDYNE TAC WOBURN, MASSACHUSETTS 01801 U.S.A.	APPR [illegible] DATE 6/14/95	MATERIAL ML 110025			C110025	
		TREATMENT			DWG NO	
		FINISH				

TELEDYNE TAC

TITLE: CHUCK ASSY

ML109980

COVER SHEET

DRN.	DATE	CHK.	DATE	APPR.	DATE	SHEET ONE OF 3
IRR	12-17-79	R.L.H.	6-16-81	PMW	6/18/81	

NEXT ASSY. NO.	NEXT ASSY. TITLE	PRODUCT	ML VERS.
ML/D110057	Z STAGE HSG. ASSY	MARK 710	-A

REV.	E.C. NO. / CHANGE DESCR.	DATE	BY
3	REDN & REVISED WITH CHG'S	12-17-79	IRR
4	23 was 9/64 LG; 28 was 7/16 LG Added 32 & 33; See Dwg	1-10-80	DAL
5	PRC 710-1	1/22/80	RLP
6	PRC 710-25 (Version B Added)	2/5/80	DOL
7	PRC 710-26	2/7/80	DOL
8	PRC 710-66	3-19-80	JDC
9	PRC 710-400	10-4-80	JDC
10	PRC 710-168	12-16-80	DRD2
11	PRC 710-619	1-28-81	IRR
12	EC 4245	6-9-81	JM3

TT-ML-1/1

TELEDYNE TAC

TITLE: CHUCK ASSY

ML 109980

MATERIAL LIST

ITEM	PART NUMBER	PART DESCRIPTION	A QTY.	B QTY.	QTY.	QTY.	QTY.	REFERENCE:
	D109980A	CHUCK ASSY	X					
	D109980B	CHUCK ASSY-- 4 1/2" DIA OPTION		X				
1	ML/C111535A	UPPER CHUCK ASSY	1	—				
2	ML/C111651A	CHUCK PLATE ASSY	1	1				
3	ML/A109978A	FINGER LIFTING ASSY	1	1				
4	ML/C111865	TOP CHUCK ASSY 4 1/2" DIA	—	1				
5	ML/C112094	THETA RING ASS'Y.	1	1				
6								
7	B109860	HUB, CHUCK CENTERING	1	1				
8	B109859	DISC, CHUCK CENTERING	1	1				
9	B109862	INSULATOR, CHUCK	1	1				
10								
11								
12								
13								
14								

SHEET 2 OF 3

1 2 3 4 5 6 7 8

TT-ML-2/1

TELEDYNE TAC

TITLE: CHUCK ASSY

ML 109980

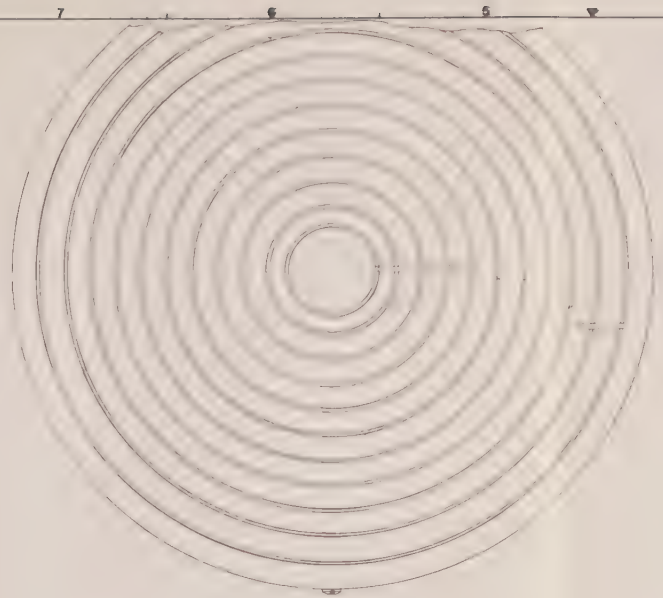
MATERIAL LIST

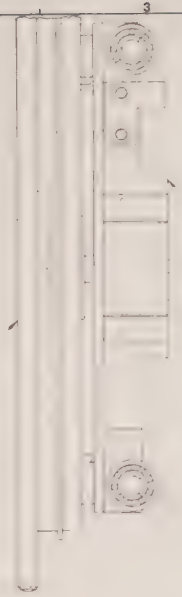
SHEET 3 OF 3

ITEM	PART NUMBER	PART DESCRIPTION	ASSEMBLY VARIATIONS → A QTY.	B QTY.	QTY.	QTY.	QTY.	REFERENCE:
15	122063	THRUST BEARING	1	1				
16								
17	120135	"O" RING – 3/32 I.D. X 7/32 O.D.	1	1				
18	120137	"O" RING – 9/16 I.D. X .070 SECTION	1	1				
19	118050	SPRING	1	1				
20								
21								
22								
23								
24								
25								
26	#10-32	NUT, SELF-LOCKING	1	1				
27								
28	4-40 X 7/16 LG	SETSCREW, CONE PT, HEX DRIVE	3	—				
29								
30								
31								
32								
33								
34	B114000	WRENCH -- CHUCK BRG ADJ	REF					

1 2 3 4 5 6 7 8

REV	E.C.N./C.M.N.	DESCR.	DATE	BY
3		REDN & REVISED WITH CHG'S SEE ECN	12-5-79	[illegible]
4		[illegible]	1-8-80	BAS
5	PRC 710-1		2/4/80	[illegible]
6	PRC 710-25		3/4/80	BAS
7	PRC 710-26		3/7/80	SAS
8	PRC 710-66		3-7-86	JDC
9	PRC 710-400		3-4-86	JDC
10	PRC 710-468		10-14-87	SSR
11	PRC 710-619		2-28-89	[illegible]
12	EC 4245		6-4-91	[illegible]

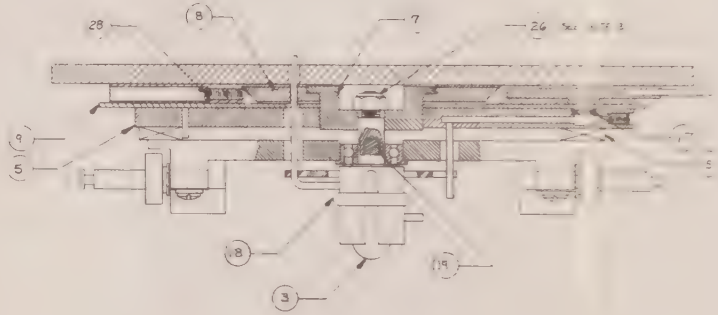




(2) SEE NOTE 1

NOTES

1. ORIENT ITEMS (1) (2) & (3) AS SHOWN
2.
3. SNUG (20) WITH (34) IN PLACE OF (3) UNTIL AXIAL PLAY IS REMOVED. DO NOT TIGHTEN EXCESSIVELY. ITEM (5) SHOULD NOT DRAG.



TELEDYNE TAC

CHUCK ASSY

D

TELEDYNE TAC

TITLE: UPPER CHUCK ASSY

ML 111535

COVER SHEET

DRN.	DATE	CHK.	DATE	APPR.	DATE	SHEET ONE OF 3
IRR	11-28-79	R.J.H.	6-16-81	PMW	6/15/81	

NEXT ASSY. NO.	NEXT ASSY. TITLE	PRODUCT	ML VERS.
ML/D109980	CHUCK ASSY	MARK 710	-A

REV.	E.C. NO. / CHANGE DESCR.	DATE	BY
1	It 8 was PIC D3-875; It 12 was PIH	1-10-80	[illegible]
2	PRC 710-1	1/22/80	R.G.B.
3	PRC 710-29	2-7-80	DAS
4	PRC 710-72	3-12-80	DAS
5	PRC 710-483	11/17/80	[illegible]
6	4245	6-5-81	IRR
7	4291	10-7-81	R.J.H.

TT-ML-1/1

TELEDYNE TAC

TITLE: UPPER CHUCK ASSY

ML 111535

MATERIAL LIST

ASSEMBLY VARIATIONS → A

ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
	C111535A	UPPER CHUCK ASSY	X					
1	C109856	CHUCK, TOP	1					
2								
3	C109857	RING, CHUCK STIFFENER	1					
4								
5	B109861	DISK, VACUUM DISPERSAL	1					
6	A112143	DECAL, CHUCK VACUUM	1					
7	123424	WAVE SPRING	1					
8	1/16 DIA x 7/8 LG	DOWEL PIN	1					ALT-120575
9								
10	2-56 X 1/4 LG	B.H. SCR	2					
11								
12	4-40 X 3/16 LG	B.H. SCR	6					
13								
14								

TELEDYNE TAC

TITLE: UPPER CHUCK ASSY

ML 111535

MATERIAL LIST

ASSEMBLY VARIATIONS → | A

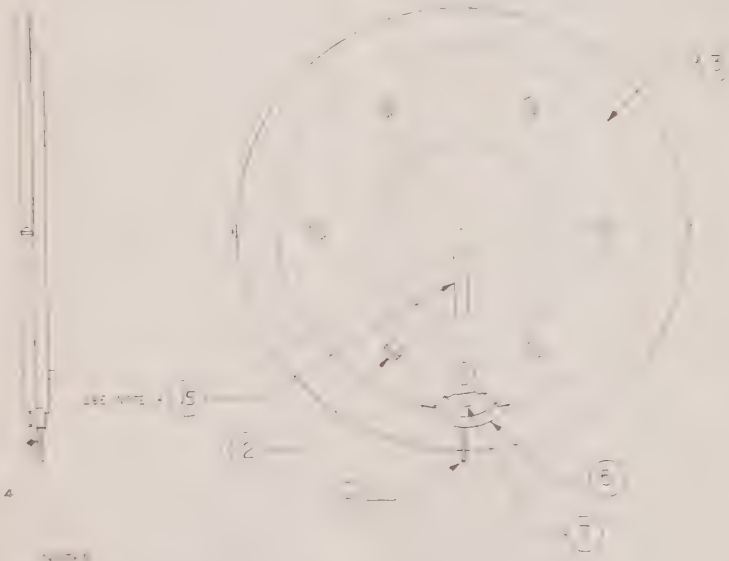
SHEET 3 OF 3

ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
15	B112110	COVER VACUUM PASSAGE	1					
	.0125	SHIM STOCK, PLASTIC (BLACK	REF					ARTUS
	.020	SHIM STOCK, PLASTIC (YELLOW)	REF					ARTUS
	.015	SHIM STOCK, PLASTIC (PINK)	REF					ARTUS
21	825658	TAPE, TRANSPARENT 3M SCOTCH NO. 810	A/R					
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								

1 2 3 4 5 6 7 8

TT-ML-2/1

REV.	E.C. NO./CHG DESCR	DATE	BY
	[illegible]	[illegible]	[illegible]
2	PRC 710-1	1/22/80	PGB
3	PRC 710-29	2/7/80	[illegible]
4	PR- 710-72	3/11/80	[illegible]
5	PRC-710-[illegible]	[illegible]	[illegible]



CENTER (3) RELATIVE TO 3-HOLE PATTERN IN (1) ±.001 BEFORE TIGHTENING (12)

FLATNESS OF (1) AND (3) CRITICAL

ITEM (15) MUST PROTRUDE .000/.003 ABOVE ITEM (1) SURFACE.

SELECT ITEM (15) MATL APPROPRIATELY — SEE DETAIL DWG

NOTES

4. POSITION DECAL (6) WITH CHARACTER '4' LOCATED AS SHOWN
5. TEST COMPLETED ASSY FOR STICTION & LEAKAGE — ALL FOUR POSITIONS

LIMITS UNLESS SPECIFIED:	DO NOT SCALE DRAWING OR PRINT. REMOVE ALL BURRS, SHARP EDGES	SCALE 1/1	FIRST USED ON ML D 09980
	DRAWING TITLE: CHUCK ASSY		
TELEDYNE TAC	MATERIAL ML111535		DWG NO C
	TREAT/FINISH		SHEET

TELEDYNE TAC

TITLE: ASSY: "Y" DRIVE BLOCK

ML 110406

COVER SHEET

DRN.	DATE	CHK.	DATE	APPR.	DATE	SHEET ONE OF 3
R.B.	11/29/79	R.H.	6-16-81	PMW	6/15/81	

NEXT ASSY. NO.	NEXT ASSY. TITLE	PRODUCT	ML VERS.
M4D111743	BASE ASSY-LEVEL 3	MARK 710	A

REV.	E.C. NO. / CHANGE DESCR.	DATE	BY
1	It 3 was F. WARD Co; added alt. It 5 was B/2-7 It 8 was 8-32 x 1" Pan Hd Added It 11, 12, 13	12-20-79	Dal
2	PRC 710-1	1/21/80	RLP
3	PRC 710-551	12/21/80	IRR
4	PRC 710-214	1-5-81	IRR
5	EC 4245	6-9-81	DMS

TELEDYNE TAC

TITLE

ASSY "Y" DRIVE BLOCK

ML110406

QUANTITY PER ASSY

A	ITEM	PART NUMBER	DESCRIPTION	MANUFACTURER	REMARKS REF. DES.
		C110406	ASSY "Y" DRIVE BLOCK		
1	1	C109516	'Y' DRIVE BLOCK		
1	2	A110408	ADJ. PLATE		
1	3	A110407	BALL		
1	/	120094	BALL		
6	4	123292	BEARING		
12	5	120296	SPACER .031 THK		
1	6	123043	SPRING, COMPRESSION		
6	7	118426	SHOULDER SCREW		
1	8	8-32X1 3/16	SCREW, BINDER HD.		
	9				
2	10	#8	WASHER, FLAT		

ML

TELEDYNE TAC

TITLE: ASS'Y 'Y' DRIVE BLOCK

ML 110406

MATERIAL LIST

ASSEMBLY VARIATIONS → A

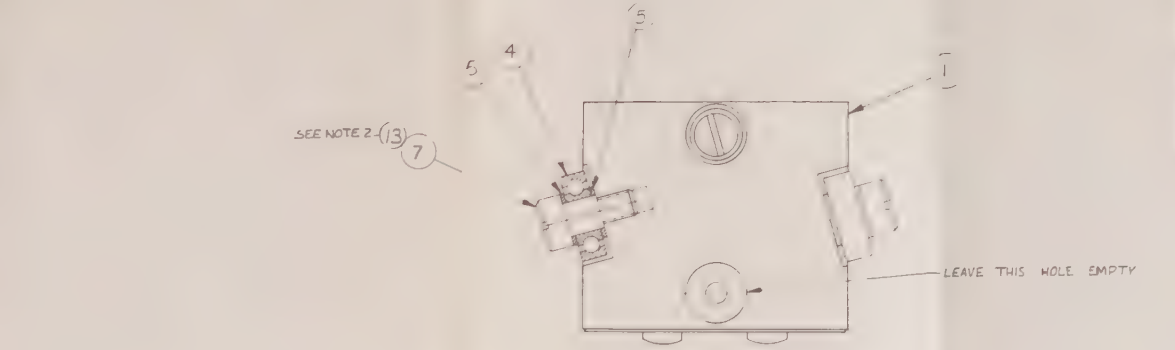
SHEET 3 OF 3

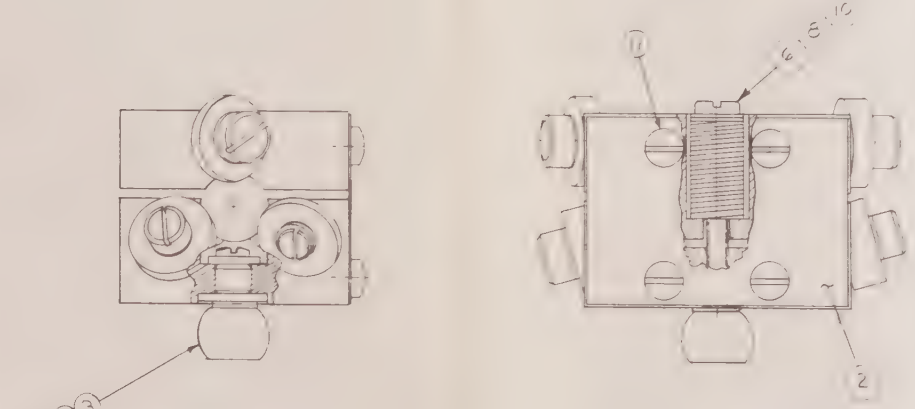
ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
11	6-32 x 1/4	SCREW, BINDER HD.	5					
12	No. 6	WASHER, FLAT	1					
13	825393	ADHESIVE, THREAD-LOCKING	AR					

1 2 3 4 5 6 7 8

TT-ML-2/1

REV	ECR NO	DATE	BY
1	[illegible]	[illegible]	[illegible]
2	PRC 710-1	1/4/80	[illegible]
3	PRC 710-5A	8/21/80	[illegible]
4	[illegible]	[illegible]	[illegible]
5	EC 4240	[illegible]	[illegible]





NOTE.
1. ITEM (1) IS A MATCHED ASSY. SERIAL NUMBERS ON BOTH HALVES MUST AGREE.
2. USE ITEM (13) LOCTITE ON THREADS OF ITEM (7) SPARINGLY. KEEP OUT OF BEARINGS ITEM (4).

DO NOT SCALE DRAWING REMOVE ALL BURRS AND SHARP EDGES	DRN J. Sarkkinen DATE 5-4-79	2/1 SCALE	VAR ML 611 743 ASSY DWG	-43 ML NO	PRODUCT
LIMITS UNLESS OTHERWISE SPECIFIED: FRACTIONAL: ± 1/64 IN. ANGULAR: 30 MIN. DECIMAL: ± .005 IN SURFACES: ✓	CHK [illegible] DATE 6-16-81 APPR [illegible] DATE 6/16/81 APPR [illegible] DATE 6/16/81	TITLE 'Y' DRIVE BLOCK ASSY	
TELEDYNE TAC WOBURN, MASSACHUSETTS 01801 U.S.A.		MATERIAL ML 10406 TREATMENT FINISH	C110406 DWG NO

TELEDYNE TAC

TITLE: BRIDGE ASSY

ML 111378

COVER SHEET	DRN. IRR	DATE 10/30/79	CHK. R.L.H.	DATE 6-16-81	APPR. PMW	DATE 6/15/81	SHEET ONE OF 3

NEXT ASSY. NO.	NEXT ASSY. TITLE	PRODUCT	ML VERS.
ML D111743	BASE ASSY – Level 3	MARK 710	A

REV.	E.C. NO. / CHANGE DESCR.	DATE	BY
1	PRC 710-1	1/22/80	RLP
2	PRC 710-70	2/28/80	DAS
3	PRC 710-96	3/12/80	DAS
4	PRC 710-320	7/29/80	DAR
5	PRC 710-757	5/19/81	IRE
6	EC 4245	6-8-81	DAS

TELEDYNE TAC

TITLE: BRIDGE ASSY

ML 111378

MATERIAL LIST

ASSEMBLY VARIATIONS → | A | | | | |

SHEET 2 OF 3

ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
	D111378A	BRIDGE ASSY	X					
1	ML/D110333	THETA · PLATE ASSY	1					
2	ML/B113041A	CABLE ASSY SAFTEY SWITCH	1					
3	J109366	MACH. BRIDGE	1					
/	J109365	CASTING BRIDGE	REF					
5	A113012	MOUNT, SWITCH	1					
6	D110188	COVER CHUCK	1					
7	B110758	ATC INTERRUPTER	1					
8	B110402	PIVOT BLOCK	4					
9	B110403	PIN HINGE	2					
10	B110186	HINGE, COVER	1					
/	825426	HINGE, CONTINUOUS	A/R					
12	A111377	PIN, COVER	1					
13	A113013	COVER, SWITCH	1					
14	118840	METAL HOLE PLUG	1					

1 2 3 4 5 6 7 8

TT-ML-2/1

TELEDYNE TAC

TITLE: BRIDGE ASSY

ML 111378

MATERIAL LIST

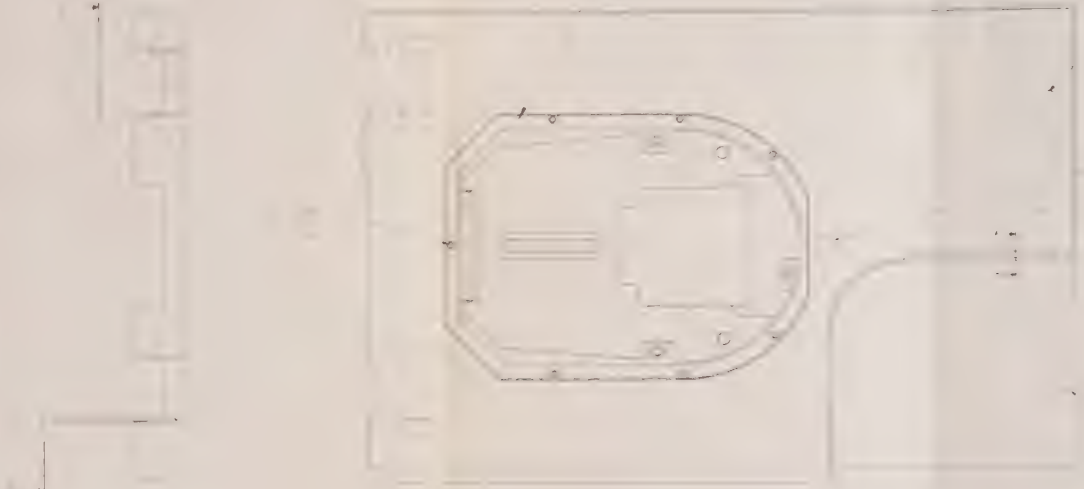
ITEM	PART NUMBER	PART DESCRIPTION	A QTY.	QTY.	QTY.	QTY.	QTY.
15	825362	CLAMP NYLON CABLE	4				
16	A110187	STRAP	1				
17	4-40 X 1/4 LG	FLAT HD. SCR.	4				
18	2-56 X 1/2 LG	BINDER HD. SCR	2				
19	2-56 X 3/8 LG.	BINDER HD. SCR	2				
20	6-32 X 3/8 LG	BINDER HD. SCR	4				
21	2-56 X 3/16 LG	BINDER HD. SCR	10				
22	B114723	PLATE, CABLE COVER	1				
23	4-40 X 1/4 LG	SOC HD. CAP. SCR.	2				
24	6-32 X 3/4 LG	SOC. HD. CAP SCR.	2				
25							
26							
27	10-32 X 1/2 LG	SOC. HD. CAP SCR	15				
28	10-32 X 3/4 LG	SOC. HD. CAP SCR	4				
29							
30	26	HEX NUT	1				
31	A114769	FOAM BACKED TAPE MOD	1				
/	825448	FOAM BACKED TAPE	REF				
33							
34							

ASSEMBLY VARIATIONS →

SHEET 3 OF 3

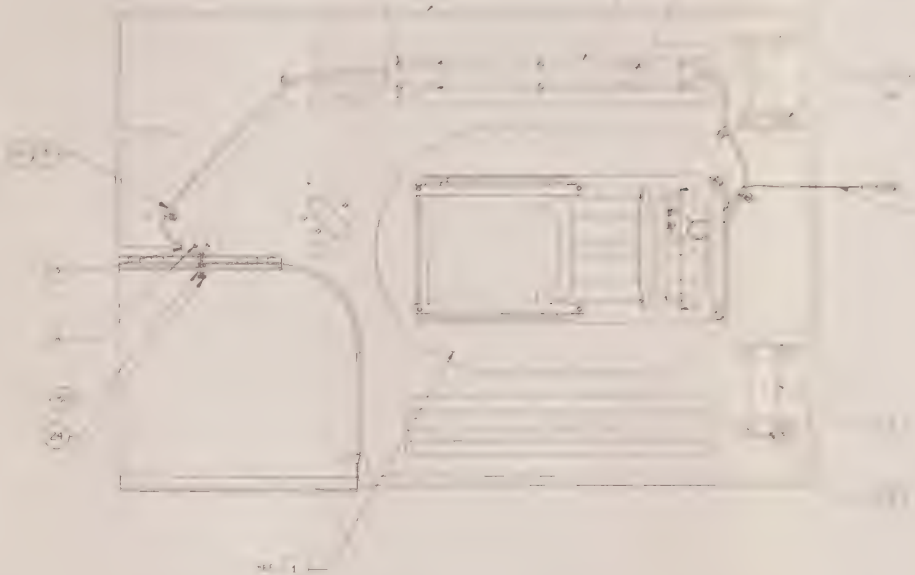
REFERENCE:

TT-ML-2/1



SECT B-B
SCALE 1"

		SCALE	
		DRAWING TITLE	BRIDGE ASSY
		MATERIAL	
TELEDYNE TAC			D



NOTES:
APPLY ITEM (3) FOAM BACKED TAPE MOD. TO ITEM (4) PLATE CABLE COVER, AS SHOWN TO HOLD DOWN ITEM (2) CABLE ASSY SAFETY SWITCH IN GROOVE OF BRIDGE CASTING ITEM (1).

TELEDYNE TAC

BRIDGE ASSY

D

TELEDYNE TAC

TITLE: ASSY: OPTICS MOUNT

ML110438

COVER SHEET

DRN.	DATE	CHK.	DATE	APPR.	DATE	SHEET ONE OF
DH3	5-7-79	R.J.H.	6-16-81	PMW	6/15/81	3

NEXT ASSY. NO.	NEXT ASSY. TITLE	PRODUCT	ML VERS.
ML/D111743	BASE ASSY LEVEL 3	MARK 710	A

REV.	E.C. NO./CHANGE DESCR.	DATE	BY
1	TITLE WAS: ASSY MICROSCOPE	12/19/79	R.B.
2	PRC 710-1	1-21-80	AKP
3	PRC 710-113	3-21-80	DAS
4	PRC 710-254	7-3-80	DM
5	PRC 710-531	12-12-80	DMT
6	PRC 710-673	3-13-81	DROR
7	PRC 710-720	5-1-81	DH3
8	4245	10-3-81	DROR
9	4273	7-28-81	R.J.H.

TELEDYNE TAC

TITLE: ASSY: OPTICS MOUNT

ML 110438

MATERIAL LIST

ASSEMBLY VARIATIONS → A

SHEET 2 OF 3

ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
	D110438A	ASSY: OPTICS MOUNT						
1	D109546	SUPPORT, MACH	1					
	109545	SUPPORT, CASTING	/					
3	D109596	ARM, MACH	1					
	109595	ARM, CASTING	/					
5	D109642	MOUNT, MACH.	1					
	109641	MOUNT, CASTING	/					
7	C110141	PIVOT BLOCK	1					
8	B110140	PIVOT PIN	1					
9								
10	A110137	PLUNGER	1					
11	A110138	COVER, SPRING	1					
12	A114155	SPECIAL HEX NUT, 1/2-13	1					
13	825438	ADJ. RACK	1					
14	B111527	NUT PLATE	1					

1 2 3 4 5 6 7 8

TELEDYNE TAC

TITLE: ASSY: OPTICS MOUNT

ML 110438

MATERIAL LIST

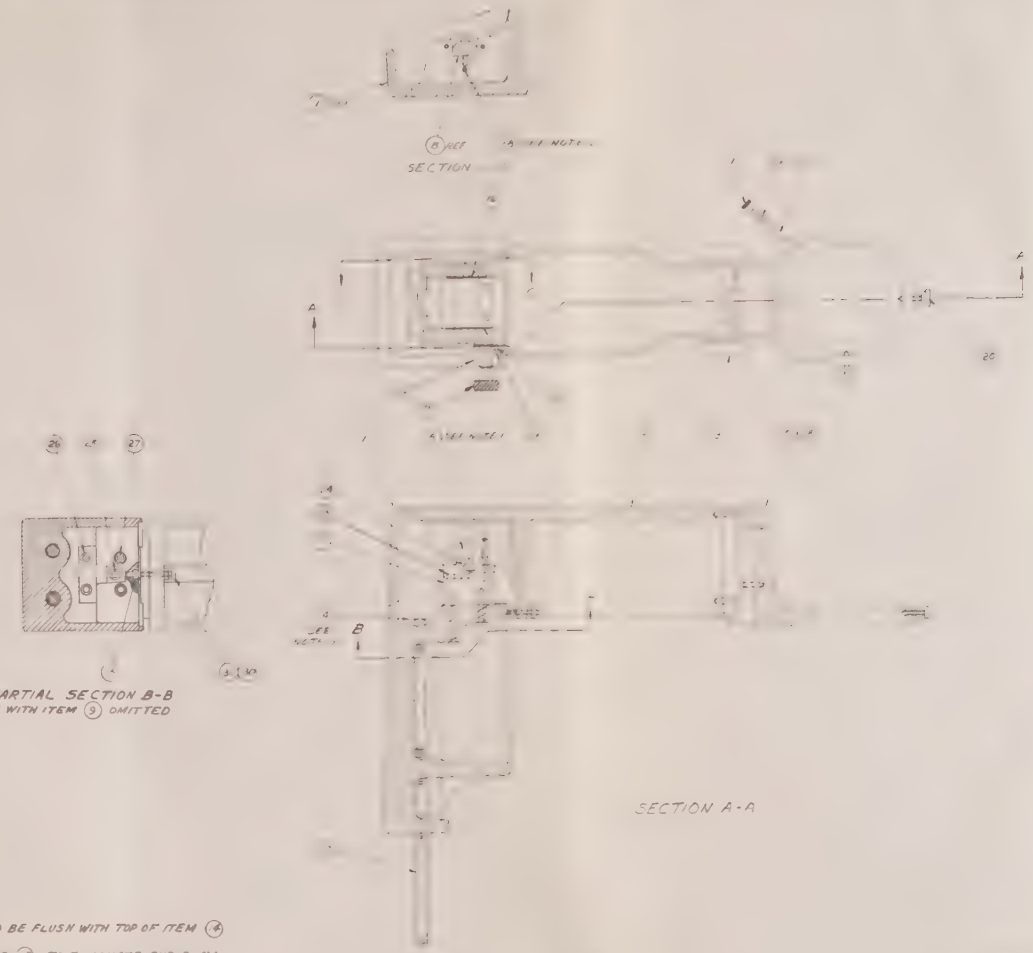
ASSEMBLY VARIATIONS → | A | | | | |

SHEET 3 OF 3

ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
15	122234	JIG BUTTON	1					
16	123571	THRUST WASHER	2					
17	A111594	ROD, THREADED	2					
18	123376	BALL PLUNGER	3					
19	121609	SPRING, COMP	1					
20	A111637	THUMB SCREW	2					
21	10-32 X 1" LG	SHCS	/					
22	119489	KNOB	/					
23								
24	1/4-20 x 7/8	SHCS	2					
25	1/4-20 x 1 1/4	SHCS	1					
26	1/4-20 x 1 3/4	SHCS	2					
27	1/4-20 x 2 1/2	SHCS	2					
28	8-32 x 5/8	SHCS	4					
29	825079	HAND- RETRACTABLE SPRING PLUNGER	1					
30	10-32	HEX NUT	1					
31	122249	THUMBSCREW #10-32	1					
32	1/2-13	HEX NUT	1					
33	120503	NO-MAR SETSCREW PIC NO. CS-31	1					
34								

1 2 3 4 5 6 7 8

TT-ML-2/1



PARTIAL SECTION B-B
VIEW WITH ITEM (9) OMITTED

NOTES

1. ASSEMBLE ITEM (8) WITH END MARKED "X" POSITIONED AS SHOWN
2. ADJUST ITEMS (18) TO ELIMINATE END PLAY BEFORE ASSEMBLING ITEM (7) TO ITEM
3. ITEMS (17) TO BE FLUSH WITH TOP OF ITEM (16)

TELEDYNE TAC

OPTICS MOUNT ASSEMBLY

MATERIAL ML 110438

D 110438

TELEDYNE TAC

TITLE: ASSY: THETA PLATE

ML 110333

COVER SHEET

DRN.	DATE	CHK.	DATE	APPR.	DATE	SHEET ONE OF 4
R.B.	11/30/79	R.L.H	6-16-80	PMW pad	6/15/81	

NEXT ASSY. NO.	NEXT ASSY. TITLE	PRODUCT	ML VERS.
D111378	ASSY: BRIDGE	MARK 710	A

REV.	E.C. NO. / CHANGE DESCR.	DATE	BY
1	REDRAWN W. CHGS.		
2	PRC 710-1	1/22/80	RGB
3	PRC 710-8 Added Its. 21, 23, 44-47 It 22 was B6-4 It 35 was 1 3/8 It 37+41 was 1/2 Lg	1/22/80	DAS
4	PRC 710-38	2/13/80	IKL
5	PRC 710-51	3 3 80	DAS
6	PRC 710-162	9/21/80	J.S.
7	PRC 710-403	10/2/80	DAS
8	PRC 710-261	10-4-80	JDC
9	EC 4245	6-5-81	TRS
10	4276	10-19-81	R.J.H.

TELEDYNE TAC

TITLE: THETA PLATE ASSY

ML110333

QUANTITY PER ASSY

A	ITEM	PART NUMBER	DESCRIPTION	MANUFACTURER	REMARKS REF. DES.
		D110333	THETA PLATE ASSY		
1	1	D109902	CARD PLATE, MACH.		
REF	/	D109901	CARD PLATE, CASTING		
1	2	D110318	MACH. HINGE PLATE		
REF	/	114912	CAST. HINGE PLATE		
1	4	B110326	HINGE		
2	5	B110325	CARD CLAMP		
2	6	B110324	CARD RAIL		
1	7	C110320	CONNECTOR MTG.		
1	8	B110321	CONNECTOR PLATE		
1	9	B110323	PIVOT ARM 'A'		
1	10	B110322	PIVOT ARM 'B'		

TELEDYNE TAC

TITLE THETA PLATE ASSY

ML110333

QUANTITY PER ASSY	ITEM	PART NUMBER	DESCRIPTION	MANUFACTURER	REMARKS REF. DES.
2	11	A110328	SCREW, CAPTIVE		
2	/	118321	SCREW		
4	12	A110329	TENSIONER		
1	13	A110330	PLUNGER		
1	14	A110331	STUD		
1	15	D110319	CARD THETA PLATE		
1	16	A125065	THUMB SCREW		
3	17	A110341	THUMB SCREW		
1	18	119489	THUMB SCREW KNOB		
	19				
2	20	118424	SHOULDER SCREW		
1	21	121578	SPRING, COMPRESSION		
2	22	120281	SPACER		
	23				
	24				
2	26	A110342	CAM		
3	27	120292	SPACER		
1	28	10-32 X 3/8 LG	SCREW, SOC. HD. CAP		

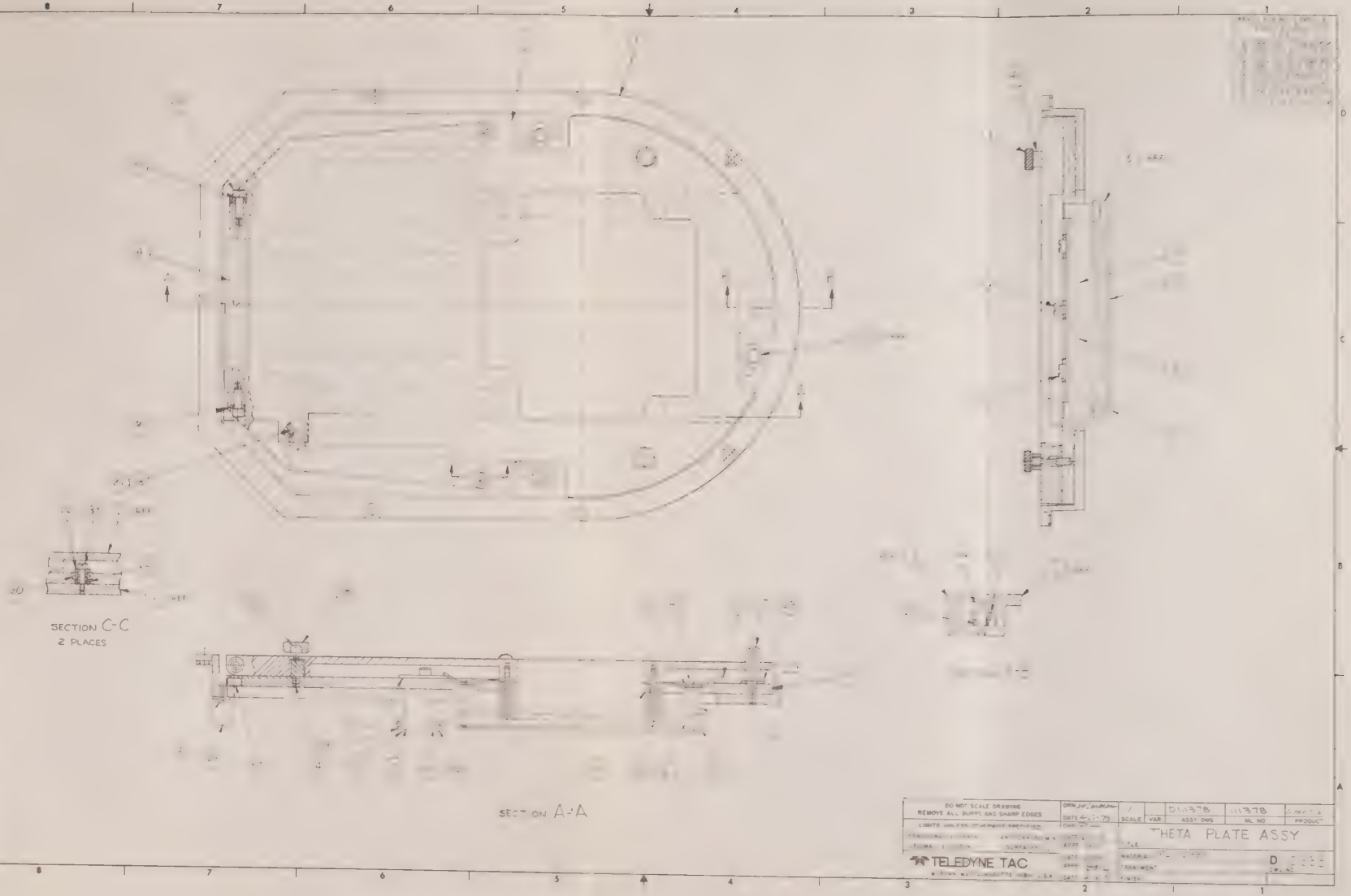
TELEDYNE TAC

TITLE: THETA PLATE ASSY

ML110333

QUANTITY PER ASSY	ITEM	PART NUMBER	DESCRIPTION	MANUFACTURER	REMARKS REF. DES.
3	29	123766	WASHER, NYLON		
3	30	121119	BEARING, FLANGED & SHIELDED 1/4 BORE 1/2 OD 3/16 W		Alt: BARDEN SFR188SSW or SFR188SSTA
2	31	121115	BEARING, SHIELDED 3/16 BORE x 3/8 OD x 1/8 W		Alt. BERG B1-27 BARDEN SR16GSS
2	32	118423	SHOULDER SCREW		
2	33	118419	SHOULDER SCREW		
1	34	118427	SHOULDER SCREW		
4	35	6-32UNC-2Ax1"	SCREW, BINDER HD		
2	36	4-40 x 1 LG	SCREW, BINDER HD		
3	37	10-32UNC-2A x 3/8	SCREW, SOC. HD. CAP.		
4	38	119768	SPACER, 3/8 DIA x .75 LG		
4	39	119424	SPACER, 1/4 DIA x .62 LG		
8	40	117540	WASHER, #4 x 1/16 THK.		
4	41	4-40 x 1/4 LG	SCREW, SOC. HD. CAP		
2	42	6-32 x 3/8 LG	SCREW, BINDER HD.		
1	43	B-111275	CABLE RETAINER		
4	44	4-40 x 1/4 LG	SCREW, BINDER HD.		
2	45	119743	SPACER, NYLON		
	46				
1	47	121497	CARD CONNECTOR		
2	48	#4	FLAT WASHER		
2	49	4-40	HEX NUT		

ML


SECTION C-C
2 PLACES
SECTION A-A
DO NOT SCALE DRAWING
REMOVE ALL BURRS AND SHARP EDGES
TELEDYNE TAC
D11378
111378
THETA PLATE ASSY

MARK 710

VOLUME II

SECTION IV

LEVEL 4 ASSEMBLY

Base Assembly Level 4 appears in VOLUME I, SECTION III.

MARK 710

VOLUME II

SECTION V

LEVEL 5 ASSEMBLY

	MATERIAL LIST	ASSEMBLY
Base Assembly Level 5	ML111745	D111745 (3 SHEETS)
Recommended Spares	ML114018	
Tester Module	ML112510-A	C112510
Inker Mount - Autolift	ML111873-A	D111873-A
Inker Head	ML104072-A	B104072-A

TELEDYNE TAC

TITLE: BASE ASSY — LEVEL 5

111745

COVER SHEET

DRN. DATE 1-15-80 | CHK. DATE 6-24-81 | APPR. DATE 6/24/91

SHEET ONE OF 12

NEXT ASSY. NO.	NEXT ASSY. TITLE	PRODUCT	ML VERS.
———	(TOP)	MARK 710	A

REV.	E.C. NO. / CHANGE DESCR.	DATE	BY
25	PRC 710-714	4-10-81	RT
26	PRC 710-752	5-14-81	RT
27	EC 4245	6-19-81	DAS

REV.	E.C. NO. / CHANGE DESCR.	DATE	BY
1	PRC 710-1	2/4/80	RGB
2	PRC 710-24 (Added 16, 20, 30)	2-7-80	DAS
3	PRC 710-84	3-10-80	DAS
4	PRC 710-52 (Added It 34)	3-17-80	DAS
5	PRC 710-106	3-27-80	DAS
6	PRC 710-127	3-28-80	DAS
7	PRC-710-100	4-2-80	JDC
8	PRC-710-141	4-7-80	JDC
9	PRC 710-135	4-21-80	JDC
10	PRC 710-172	4-25-80	JDC
11	PRC 710-45	5/7/80	DRR
12	PRC 710-190	illegible	illegible
13	PRC 710-280	6-24-80	JDC
14	PRC 710-290	7/15/80	illegible
15	PRC 710-374	9/3/80	illegible
16	PRC 710-407	9-26-80	JDC
17	PRC 710-565	12-18-80	RT
18	PRC 710-291	1-21-81	DRR
19	PRC 710-580	1-21-81	DRR
20	PRC 710-627	1-29-81	RT
21	PRC 710-631	2-9-81	illegible
22	PRC 710-615	2-10-81	DRR
23	PRC 710-653	3-4-81	DRR
24	PRC 710-654	3-16-81	DRR

TELEDYNE TAC

TITLE: BASE ASS'Y - LEVEL 5

ML 111745

MATERIAL LIST

SHEET 2 OF 12

ITEM	PART NUMBER	PART DESCRIPTION	ASSEMBLY VARIATIONS → A					REFERENCE:
			QTY.	QTY.	QTY.	QTY.	QTY.	
	D111745-A	BASE ASSY - LEVEL 5	X					
1	ML/D111744-A	BASE ASSY - LEVEL 4	1					
2	ML/C110317-A	SENSOR INTERCONNECT BD. #2	REF.					
3	ML/D110612-A	INTERFACE BD	REF					
4	ML/D111423	ASSY TV CAMERA 60 Hz.	REF.					
5	ML/C111421	ASSY TV OPTICS	REF					
6	ML/B102485	CABLE ASSY, ILLUM.	REF.					
7	ML/A113721	CABLE ASSY, CAMERA	REF.					
8	ML/D110850-A	REAR PANEL ASSY.	REF					
9	ML/D111812-A	POWER INTERCONNECTION BD	REF					
10	ML/C110916-A	CABLE ASSY, LIMIT SENSORS	REF					
11	ML/B110435-A	ASSY SENSOR BD #1	REF					
12	ML/D111076A	ASSY: ILLUMINATOR SW.	REF					
13	ML/A112255-A	CABLE ASSY, ILLUMINATOR	REF					
14	ML/A112226-A	CABLE ASSY, EDGE SENSOR	REF					

1 2 3 4 5 6 7 8

TELEDYNE TAC

TITLE: BASE ASSY - LEVEL 5

ML 111745

MATERIAL LIST

ASSEMBLY VARIATIONS → A

SHEET 3 OF 12

ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
15								
16	ML/B110866-A	CABLE ASSY, TABLE MOTORS	REF					
17	ML/D112271A	POWER SUPPLY ASSY	REF					
18	ML/C112390	P.S. PC BOARD	REF					
19	ML/C112665	P.S. CABLE ASSY.	REF					
20	ML/J112970	HARNESS	REF					
21	ML/B111740-A	CABLE ASSY Y MOTOR	REF					
22								
23	ML/J110084-A	LOGIC P.C. BD.	REF					
24	ML/C112510A	TESTER MODULE ASSY	REF					
25								
26	ML/C112512A	INKER CONNECT. ASSY	REF					
27								
28	ML/B111102A	MOVING STAGE SENSOR CABLE	REF					
29								
30	ML/D111743-A	BASE ASSY - LEVEL 3	REF					
31	ML/B111635-A	SURFACE PLATE ASSY	REF					
32								
33	ML/D111487-A	CARRIAGE ASSY	REF					
34	ML/B111003-A	Z STAGE MOTOR ASSY	REF					

TELEDYNE TAC

TITLE: BASE ASSY - LEVEL 5

ML 111745

MATERIAL LIST

ASSEMBLY VARIATIONS → | A

SHEET 4 OF 12

ITEM	PART NUMBER	PART DESCRIPTION	QTY.	QTY.	QTY.	QTY.	QTY.	REFERENCE:
35	ML/C110912-A	SENSORS - Z STAGE	REF					
36								
37	ML/D110057A	Z STAGE HOUSING	REF					
38	ML/D109980A	CHUCK ASSY	REF					
39	ML/C111535A	UPPER CHUCK ASSY	REF					
40	ML/C111651A	CHUCK PLATE ASSY	REF					
41	ML/A109978A	FINGER LIFTING ASSY	REF					
42	ML/C112094A	THETA RING ASSY	REF					
43								
44								
45	ML/C110025A	Y-AXIS AIR BRG. ASSY	REF					
46								
47	ML/C110190A	BALL REDUCER ASSY	REF					
48								
49	ML/A111754A	THETA MOTOR ASSY	REF					
50								
51	ML/B110931A	THETA SENSOR BD.	REF.					
52								
53	ML/B110910A	ATC SENSOR ASSY	REF.					
54								

1 2 3 4 5 6 7 8

TT-ML-2/1

TELEDYNE TAC

TITLE: BASE ASSY - LEVEL 5

ML 111745

MATERIAL LIST

ASSEMBLY VARIATIONS → | A | | | | |

SHEET 5 OF 12

ITEM	PART NUMBER	PART DESCRIPTION	QTY.	QTY.	QTY.	QTY.	QTY.	REFERENCE:
55	ML/C 110 406 A	Y-DRIVE BLOCK ASSY	REF					
56								
57	ML/D110514 A	TERMINAL ASSY	REF					
58	ML/C111446 A	KEYBOARD ASSY	REF					
59	ML/C110062 A	KEYBOARD PCB	REF					
60	ML/B111222 A	CABLE ASSY - KEYBOARD	REF					
61								
62	ML/D111134 A	TV MONITOR ASSY	REF					
63	ML/C111046 A	VIDEO INTERFACE BD-MOD	REF					
64	ML/C111976 A	MONITOR SWITCHING ASSY	REF					
65	ML/C111087 A	MONITOR INTERCONN. BD.	REF					
66								
67	ML/C113690 A	JOYSTICK ASSY	REF					
68	ML/A113731	JOYSTICK SWITCH ASSY	REF					
69	ML/C111033	CABLE ASSY MONITOR	REF					
70								
71								
72								
73	ML/A112211 A	CARRIAGE SUPPORT ASSY	REF					
74								

1 2 3 4 5 6 7 8

TELEDYNE TAC

TITLE: BASE ASSY - LEVEL 5

ML 111745

MATERIAL LIST

ASSEMBLY VARIATIONS → A

ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
75	ML/D111378 A	BRIDGE ASSY	REF					
76	ML/D110333A	THETA PLATE ASSY	REF					
77	ML/B113041A	CABLE ASSY SAFETY SWITCH	REF					
78								
79	ML/D110438 A	OPTICS MOUNT ASSY	REF					
80								
81								
82								
83								
84	ML/C111834 A	Y-ENCODER (MOD)	REF					
85								
86								
87								
88								
89								
90	ML/D111742 A	BASE ASSY-LEVEL 2	REF					
91	ML/D110895A	LOGIC CABLE HARNESS	REF					
92	ML/B111791-A	FLAT CABLE ASSY, LOGIC	REF					
93	ML/B110896 A	FLAT CABLE ASSY, LOGIC	REF					
94	ML/B110896 B	FLAT CABLE ASSY, LOGIC	REF					

1 2 3 4 5 6 7 8

TELEDYNE TAC

TITLE: BASE ASSY - LEVEL 5

ML 111745

MATERIAL LIST

SHEET 7 OF 12

ITEM	PART NUMBER	PART DESCRIPTION	ASSEMBLY VARIATIONS → A	QTY.	QTY.	QTY.	QTY.	QTY.	REFERENCE:
95	ML/B111619 B	FLAT CABLE ASSY, LOGIC	REF						
96	ML/B110844 A	CABLE ASSY, LOGIC BD. POWER	REF						
97	ML/C111621 A	FLAT CABLE ASSY, LOGIC	REF						
98	ML/B110897 A		REF						
99	ML/B110897 B		REF						
100	ML/B110897 C		REF						
101	ML/B111618 A		REF						
102	ML/B111620 A		REF						
103	ML/C110899A		REF						
104									
105									
106	ML/C110914 A	CABLE ASSY, X LIMIT SENSORS	REF						
107	ML/B110435A	ASSY: SENSOR BD. #1	REF						
108									
109	ML/B111000 A	CABLE ASSY, AIR SENSORS	REF						
110									
111	ML/C110976 A	CABLE ASSY, AIR SOLENOIDS & ILLUM.	REF.						
112									
113	ML/B110864 A	CABLE ASSY, X MOTOR	REF.						
114									

1 2 3 4 5 6 7 8

TELEDYNE TAC

TITLE: BASE ASSY. – LEVEL 5

ML 111745

MATERIAL LIST

ASSEMBLY VARIATIONS → | A | | | | |

SHEET 8 OF 12

ITEM	PART NUMBER	PART DESCRIPTION	QTY.	QTY.	QTY.	QTY.	QTY.	REFERENCE:
115								
116								
117								
118	ML/D111741 A	BASE ASSY – LEVEL 1	REF					
119	ML/C110433 A	A.T.C. DRIVE ASSY.	REF					
120	ML/B110865A	CABLE ASSY, BRIDGE MOTORS & SOL.	REF					
121								
122	ML/C110908 A	CABLE ASSY, ATC-BRIDGE SENSORS	REF.					
123	ML/B110435A	ASSY: SENSOR BD #1	REF.					
124								
125	ML/D110163 A	JACK POST	REF					
126								
127	ML/D110163 B	JACK POST	REF					
128								
129	ML/C111288 A	X DRIVE ASSY.	REF					
130	ML/C110212 A	X DRIVE NUT ASSY	REF					
131								
132								
133	ML/C111182 A	PNEUMATIC ASSY	REF					ML/C111182 B ALT
134								

1 2 3 4 5 6 7 8

TELEDYNE TAC

TITLE: BASE ASSY – LEVEL 5

ML 111745

MATERIAL LIST

ASSEMBLY VARIATIONS → A

ITEM	PART NUMBER	PART DESCRIPTION	QTY.	QTY.	QTY.	QTY.	QTY.	REFERENCE:
135	ML/A111753 A	PRESSURE REG ASSY	REF					
136								
137	ML/B112282 A	KNOB ASSY.	REF					
138								
139	ML/D111407 A	X ENCODER - MODIFIED	REF					
140								
141	ML/C110271 A	SENSOR INTERCONNECTION BD	REF					
142								
143	ML/D109919 A	MOTOR DRIVERS BD	REF					
144								
145	ML/C109668A	SERVO MOTOR DRIVER BD	REF					
146								
147								
148	ML/A114070A	X & Y AXIS DRIVE SHAFT LUBRICANT 1 FL. OZ. (30 ML)	1					SHIP W/LOOSE HARDWARE
149								
150	D110654	CARRIAGE COVER	1					BLACK
151	D110 091	COVER - RIGHT SIDE	1					BLUE
152	D110 093	ARM REST COVER	1					WHITE
/	825250	FASTENER, SELF CLINCHING	REF					2 REQ'D.
/	825498	CLINCH STUDS	REF					2 REQ'D.

TELEDYNE TAC

TITLE: BASE ASSY – LEVEL 5

ML 111745

MATERIAL LIST

ASSEMBLY VARIATIONS → A

ITEM	PART NUMBER	PART DESCRIPTION	QTY.	QTY.	QTY.	QTY.	QTY.	REFERENCE:
155	D110089	REAR COVER	1					WHITE
156								
157	C110136	FRONT COVER	1					BLUE
/	B110132	SPRING	REF					2 REQ'D
/	825499	RIVET, ALUM.	REF					4 REQ'D, 1/8 D X 3/16 LG. C'SUNK HD
160								
161	C110102	FACE PLATE, MONITOR	1					
162	C111427	WAFER PAN	1					
163	A114118	LABEL - TRACTION LUB.	2					
164	B102020	DECAL SET	1					
165	B111522	COVER, END	1					BLACK
166	B111523	BRIDGE SKIRT	1					
/	825500	BLACK DACRON, CHECKOUT COUNTER BELT, 4"W, 2PLY	REF					
168	C113395	DECAL SET (MARK 710	1					
169	B112188	MARK 710 LOGO	1					
170	A112958	LABEL - CAUTION, BRIDGE	1					
171	A112272	CLAMP, CARRIAGE	2					FOR SHIPPING ONLY
172	A111902	ECCENTRIC - COVER	1					
173	A112959	LABEL - CAUTION, LIFT BASE	1					
174	C114886	ENCODER ALIGNMENT BRKTS	2					SHIP W/LOOSE HARDWARE

TELEDYNE TAC

TITLE: BASE ASSY-LEVEL 5

ML 111745

MATERIAL LIST

ASSEMBLY VARIATIONS → A

SHEET 11 OF 12

ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
175	A113 435	LABEL- CLEAN DRY AIR	1					
176	117658	MIRROR, FRONT SURFACE	1					
177	A114170	CARRIAGE COVER PAD	4					
178	121654	CAP	4					
179								
180	121405	CATCH, NYLATCH, STUD	3					
181	116195	CATCH, NYLATCH, STUD	1					
182								
183	121911	AIR FITTING, Q.D. W/SHUTOFF	2					
184								
185	825501	DOR-TITE, BLACK, OPEN CELL SPONGERUBBER, 1/8 THK, 1/4 W	AR					15½ L.
186	118328	SCR, THUMB	1					
187	825249	SPACER, ROUND 3/16 L. X 5/16 O.D.	1					
188	825265	FASTENING TAPE, BLACK - LOOP, 5/8 W.	AR					
189	825266	FASTENING TAPE, BLACK - HOOK 5/8 W.	AR					
190	825209	EPOXY	AR					
191								
192								
193								
194								

1 2 3 4 5 6 7 8

TT-ML-2/1

TELEDYNE TAC

TITLE: BASE ASSY – LEVEL 5

ML 111745

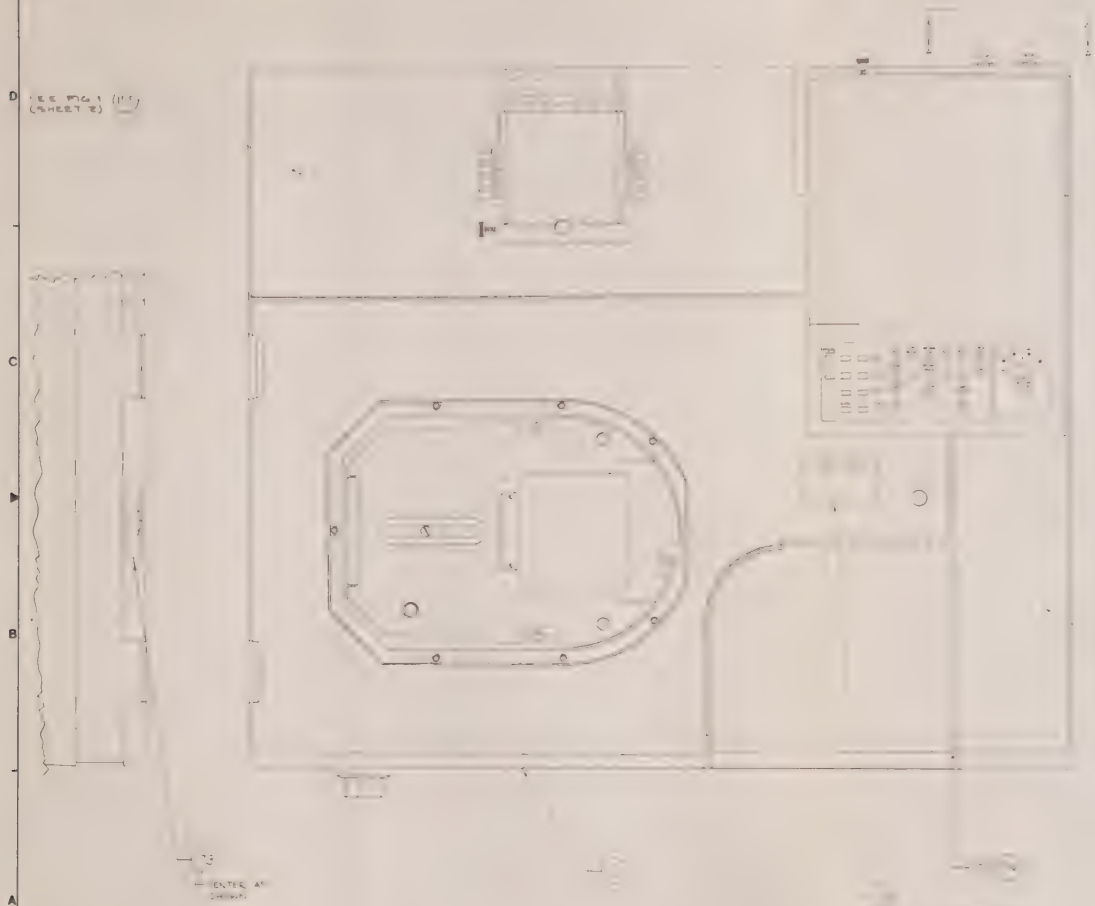
MATERIAL LIST

ASSEMBLY VARIATIONS → A

SHEET 12 OF 12

ITEM	PART NUMBER	PART DESCRIPTION	QTY.	QTY.	QTY.	QTY.	QTY.	REFERENCE:
195	4-40	NUT, HEX.	2					
196	10-32 X 5/8 LG.	SCR. SOC. HD.	1					
197	8-32 X 1 1/4 LG.	SCR. SOC. HD.	2					
198	10-32 X 1/2 LG.	SET SCR.	2					
199	8-32 X 3/8 LG	SCR. BIND. HD. , ALLOY	2					
200	4-40 X 1/4 LG	SCR. BIND. HD., ALLOY	4					
201	8-32 X 1/4 LG	SCR. BIND. HD.	2					
202	8-32 X 1/2 LG	SCR. BIND. HD.	3					
203								
204								
205								
206								
207								
208								
209								
210	ML114018	RECOMMENDED SPARE PARTS LIST MARK 110	REF					
211								
212								
213	8-32 X 5/8	SOC. HD. SCR.	REF					SHIP W/ LOOSE HARDWARE
214	8-32 X 1/2	SOC. HD. SCR.	REF					" " " "

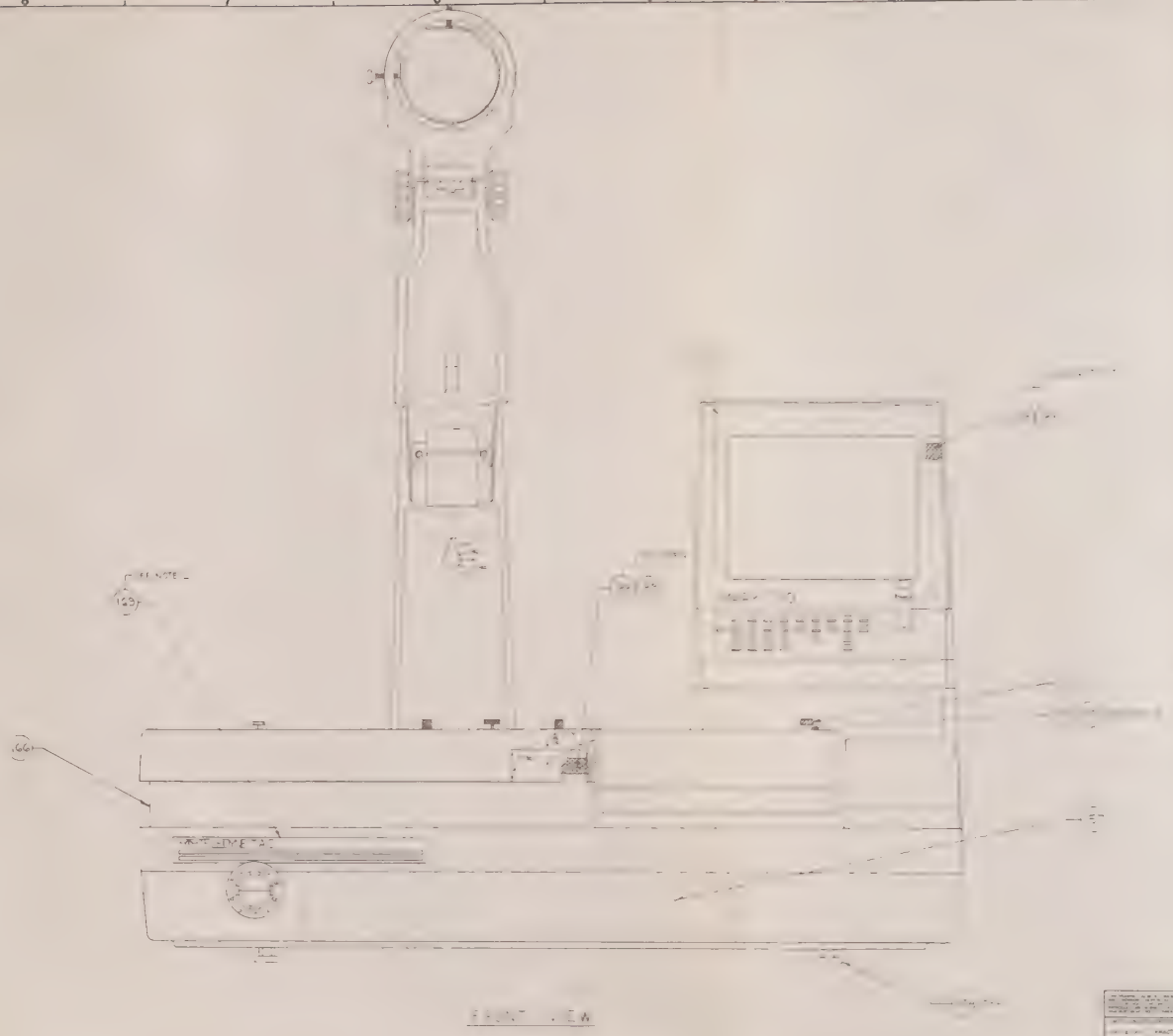
1 2 3 4 5 6 7 8



NOTES (ADDL. NOTES ON SHEETS 2 & 3)

1. THE FOLLOWING ITEMS REQD FOR A STANDARD MARK 710 ARE NOT SHOWN IN THIS DWG.
   ITEM 17 POWER SUPPLY
   ITEM 24 TESTER MODULE
   ITEM 83 QUICK DISCONNECT HOSE
   ITEM 94 [illegible]

TELEDYNE TAC



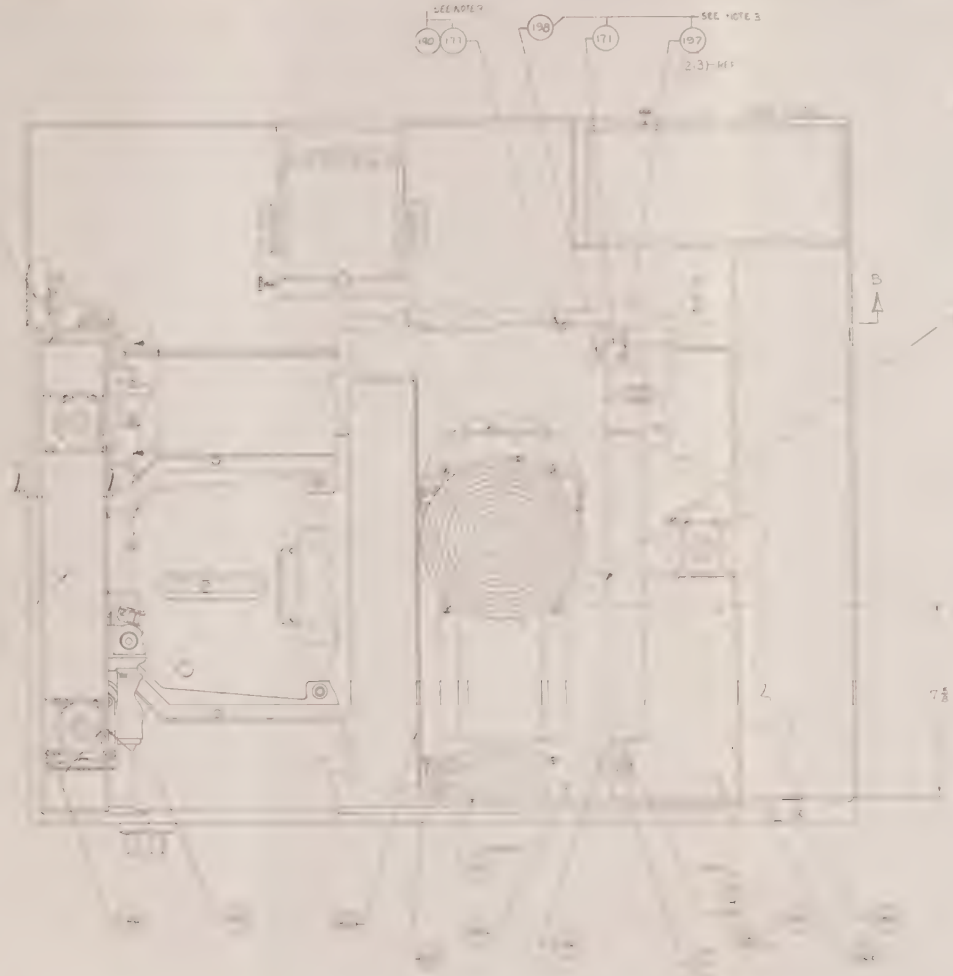
NOTES (ADD'L. NOTES ON SHEETS 1 & 3)

3. WHEN APPLYING ITEM 169, LOGO, LINE UP "1" N TAC WITH THE "1" ON DIAL AS SHOWN.
4. APPLY FASTENING TAPE, ITEM 188, FULL LENGTH OF BRIDGE SKIRT, ITEM 166, APPLY SAME LENGTH OF FASTENING TAPE, ITEM 189, TO BRIDGE AS SHOWN
7. APPLY FASTENING TAPE, ITEM 188, FULL LENGTH ON TERMINALS, APPLY SAME LENGTH OF ITEM 189, TO BACK OF FACE PLATE, MONITOR, ITEM 3
8. BOND SPACER, ITEM 87, TO BOTTOM OF THUMB SCREW WITH EPOXY ITEM 90.

FRONT VIEW

DRN: [illegible] 9-18-90	DO NOT SCALE DRAWING OR PRINT. REMOVE ALL BURRS SHARP EDGES	SCALE 1/2	PRODUCT: MARK 710
CHK'D: [illegible]	DRAWING TITLE: BASE ASSY - LEVEL 5		
DATE: 6-29-87	MATERIAL: ML 111745		DWG NO: D111745
APPD: [illegible] DATE: [illegible]	HEAT/FINISH:		

TELEDYNE TAC



SECTION 'B-B'

SECTION C-C

NOTES: (ADDL NOTES ON SHEET 02)

1. REMOVE EXISTING SCREWS & FINAL ITEMS TO BACK FINISH DIMENSIONS. REPLACE EXISTING SCREWS REMOVED FOR REPAINTING & INSTALLATION.
5. USE ITEM 15, END COVER AS A TEMPLATE DRILL AND TAP RIDE / SIDE / 3, PLACES ON UNDERSIDE OF BASE CASTING.
6. MOUNT MIRROR ITEM 76 TO FLUSH TO COVER EDGE. MOUNT WITH BEVELED SIDE UP.
7. LOCATE ITEM 83 ASSEMBLY AS APPROX. AS SHOWN.
10. REMOVE ITEM 77 ASSEMBLY (SHEET 04) TO ASSEMBLE CASTING ASSEMBLY. ITEM 76 MAY REMOVE ITEM 80 ASSEMBLY

BASE ASSY – LEVEL 5

TELEDYNE TAC

ML 111745

D 111745

TELEDYNE TAC

TITLE: RECOMMENDED SPARE PARTS LIST FOR MARK 710

ML 114018

COVER SHEET

DRN	DATE	CHK.	DATE	APPR.	DATE	SHEET
DAS	1-22-81	R.L.H.	6-24-81	[illegible]	6/24/81	ONE OF 7

NEXT ASSY. NO.	NEXT ASSY. TITLE	PRODUCT	ML VERS.
		MARK 710	

REV.	E.C. NO. / CHANGE DESCR.	DATE	BY
1	PRC 710-631	2-9-81	DM
2	PRC 710-647	2-19-81	DRR
3	PRC 710-653	3-4-81	DRR
4	PRC 710-716	4-15-81	DRR
5	PRC 710-723	5-6-81	DRR
6	EC 4245	6-23-81	DAS

TELEDYNE TAC

TITLE: RECOMMENDED SPARE PARTS LIST FOR MARK 710

ML 114018

MATERIAL LIST

SHEET 2 OF 7

ITEM	PART NUMBER	PART DESCRIPTION	ASSEMBLY VARIATIONS → TOTAL PER MACH QTY.	QTY.	1-2 MACH QTY.	QTY.	10 MACH QTY.	REFERENCE:
1	B109681	"X" DRIVE SHAFT	1		-		1	
2	B109682	"Y" DRIVE SHAFT	1		1		2	
3	C112923	"Z" DRIVE SHAFT	1		1		2	
4	B110117	ECCENTRIC	2		1		1	
5	A114682	REST BUTTON	2		2		4	
6	C110190	BALL REDUCER	1		-		1	
7	A113743	FILTER	1		1		2	
8	A110036	RISER (MATCHED SET OF 4)	1 SET		1 SET		2 SETS	
9	A110105	ATC SPRING	1		1		1	
10	A110436	ATC FRICTION PAD	1		2		4	
11	A110407	BALL, X-Y DRIVE	2		1		1	
12	B112016	BUSHING, Y DRIVE	1		1		2	
13	A111353	CYLINDER	1		0		1	
14	A112799	FILTER FITTING	1		1		2	
15	A111350	WEDGE, FINGER LIFT	1		0		1	
16	B109861	DISC, VACUUM DISPERSAL	1		1		2	
17	A110405	WEAR PAD	1		1		2	
18	B112210	CABLE, HINGE LIMIT	1		-		1	
19	B110758	ATC INTERRUPTER	1		-		1	
20	A110329	TENSIONER	4		-		2	

1 2 3 4 5 6 7 8

TELEDYNE TAC

TITLE: RECOMMENDED SPARE PARTS LIST FOR MARK 710

ML 114018

MATERIAL LIST

SHEET 3 OF 7

ITEM	PART NUMBER	PART DESCRIPTION	ASSEMBLY VARIATIONS → TOTAL PER MACH QTY.		1-2 MACH QTY.		10 MACH QTY.	REFERENCE:
21	B112282	KNOB ASS'Y.	1		1		1	
22	A109978-A	FINGER ASS'Y - STD.	1		1		2	} SELECT
	A109978-B	FINGER ASS'Y - LONG	1		1		2	
	A109978-C	FINGER ASS'Y - SHORT	1		1		2	
23	D111873	INKER MOUNT ASS'Y.			-		1	SELECT
24	B104072-D	INKER HEAD ASS'Y.			1		2	SELECT
25	D111407-A	"X" ENCODER ASS'Y.	1		-		1	OPTION
26	D110163-A	JACKPOST ASS'Y.	2		-		2	OPTION
27	D110163-B	JACKPOST ASS'Y.	1		-		1	OPTION
28	C111834	"Y" ENCODER ASS'Y.	1		-		1	OPTION
29	C114885	ENCODER SCALE	1		-		1	OPTION
30	C110025-A	"Y" AIR BEARING ASS'Y.	1		-		1	OPTION
31	C111865	TOP CHUCK ASS'Y. 4 1/2"	1		-		1	OPTION
32	C113690	JOYSTICK ASS'Y.	1		-		1	OPTION
33	123292	BALL BEARING	10		6		16	
34	825445	BALL BEARING	10		6		10	
35	118253	BALL BEARING	6		6		12	
36	120162	BEARING	1		1		2	
37	120161	BEARING	1		1		2	
38	123283	BEARING	4		4		8	

1 2 3 4 5 6 7 8

TELEDYNE TAC

TITLE: RECOMMENDED SPARE PARTS LIST FOR MARK 710

ML 114018

MATERIAL LIST

SHEET 4 OF 7

ITEM	PART NUMBER	ASSEMBLY VARIATIONS → / PART DESCRIPTION	TOTAL PER MACH QTY.		1-2 MACH QTY.		10 MACH QTY.	REFERENCE:
	1 2 3 4 5 6 7 8							
39	123198	BEARING	4		4		8	
40	123289	BEARING	5		5		10	
41	120180	BEARING	2		2		4	
42	121131	BEARING	1		1		2	
43	115141	BEARING (MATCHED PAIR)	1		1		1	
44	120188	BEARING	3		2		6	
45	117230	COUPLING, Z DRIVE	1		1		1	
46	117659	COUPLING, X DRIVE	1		-		1	
47	A114548	BELT, TIMING - SOURCE CONTROL	1		1		2	
48	118957	BELT	1		1		4	
49	118830	CLAMP	1		-		1	
50	117237	CLAMP	2		2		6	
51	123100	SPRING, EXT.	4		4		8	
52	118050	SPRING	1		1		2	
53	123424	SPRING, WAVE	1		1		2	
54	123386	WASHER	1		1		2	
55	123783	WASHER	1		1		2	
56	122865	WORM	1		-		1	
57	122858	GEAR	1		-		1	
58	122063	THRUST BEARING	1		-		1	

1 2 3 4 5 6 7 8

TELEDYNE TAC

TITLE: RECOMMENDED SPARE PARTS LIST FOR MARK 710

ML 114018

MATERIAL LIST

SHEET 5 OF 7

ITEM	PART NUMBER	ASSEMBLY VARIATIONS → / PART DESCRIPTION	TOTAL PER MACH QTY.	QTY.	1-2 MACH QTY.	QTY.	10 MACH QTY.	REFERENCE:
59	120135	"O" RING	1		2		4	
60	120137	"O" RING	1		2		4	
61	115771	GASKET, FITTING	18		6		12	
62	121911	AIR FITTING, QD	2		-		1	
63	825399	TUBING, TYGON	4'					
64	825400	TUBING, PARATUBE, 6	6'					
65	117658	MIRROR	1		1		2	
66	825397	SENSOR, PRESSURE	1		1		2	
67	825398	SENSOR, VACUUM	1		1		2	
68	121184	RESTRICTOR, VARIABLE	1		1		2	
69	122895	REGULATOR						
70	123176	SOLENOID	1		1		2	
71	121841	SOLENOID VALVE	3		3		6	
72								
73								
74								
75								
76								
77								
78								

1 2 3 4 5 6 7 8

TELEDYNE TAC

TITLE: RECOMMENDED SPARE PARTS LIST FOR MARK 710

ML 114018

MATERIAL LIST

SHEET 6 OF 7

ITEM	PART NUMBER	PART DESCRIPTION	TOTAL PER MACH QTY.		1-2 MACH QTY.		10 MACH QTY.	REFERENCE:
79	C109668A	PCB, SERVO MOTOR DRIVER	1		1		2	
80	D109919A	PCB, MOTOR DRIVER	1		1		2	
81	C110062A	PCB, KEYBOARD	1		1		2	
82	C110271A	PCB, SENSOR INTERCON. I	1		-		1	
83	C110317A	PCB, SENSOR INTERCON. II	1		-		1	
84	D110612A	PCB, INTERFACE	1		-		1	
85	J110084A	PCB, LOGIC	1		-		1	
86	B111046A	PCB, VIDEO PROCESSOR	1		-		1	
87	C111087A	PCB, MONITOR INTERCON.	1		-		1	
88	D111076A	PCB, ILLUM. RELAY & SW.	1		1		1	
89	D111812A	PCB, POWER INTERCON.	1		-		1	
90	B110931A	PCB, THETA SENSOR	1		1		1	
91	B110435A	PCB, SENSOR I	8		2		2	
92	C111334A	PCB, SENSOR II	4		4		4	
93	C111976A	PCB, MONITOR SW.	1		-		1	
94	C112390A	PCB, POWER SUPPLY	1		-		1	
95	D112271A	POWER SUPPLY ASS'Y.	1		-		1	OPTIONAL
96	D111134A	MONITOR ASS'Y	1		-		1	OPTIONAL
97	C112512A	INKER CONNECT ASS'Y	1		-		1	
98	B113041A	SAFETY SW. CABLE ASS'Y						

TELEDYNE TAC

TITLE: RECOMMENDED SPARE PARTS LIST FOR MARK 710

ML 114018

MATERIAL LIST

SHEET 7 OF 7

ITEM	PART NUMBER	PART DESCRIPTION	TOTAL PER MACH QTY.		1-2 MACH QTY.		10 MACH QTY.	REFERENCE:
	1 2 3 4 5 6 7 8	ASSEMBLY VARIATIONS →						
99	B111102A	BLUE MAX CABLE ASS'Y	1		1		2	
100	B111003	Z DRIVE MOTOR ASS'Y.	1		1		1	
101	123517	PHOTO INTERRUPTER	1		1		1	
102	121350	PHOTO INTERRUPTER	3		3		3	
103	122152	DIODE BRIDGE	3		3		3	
104	122154	DIODE BRIDGE	2		2		2	
105	D112407	TRANSFORMER	1		–		1	
106	D112408	TRANSFORMER	1		–		1	
107	117779	POWER TRANSFORMER	1		1		1	
108	117956	MICROSWITCH						
109	117103	LAMP	1		1		2	
110	118105	MOTOR, DC	2		–		1	
111	825382	MOTOR, SLO-SYN	1		–		1	
112	A111754	MOTOR, THETA	1		1		1	
113	123496	CAMERA, CCTV	1		–		1	
119	A114070A	X & Y AXIS SHAFT LUBRICANT 1 FL. OZ. (30 ML)	1		1		4	REQ'D FOR ROUTINE WEEKLY MAINTENANCE

1 2 3 4 5 6 7 8

TT-ML-2/1

TELEDYNE TAC

TITLE: TESTER MODULE ASSY

ML 112510

COVER SHEET	DRN. MSL DATE 4-21-80	CHK. R.J.H. DATE 6-19-81	APPR. T.S DATE 6-19-81	SHEET ONE OF 2

NEXT ASSY. NO.	NEXT ASSY. TITLE	PRODUCT	ML VERS.
ML-111744	BASE ASSY, LEVEL 4	MARK 710	-A

REV.	E.C. NO./CHANGE DESCR.	DATE	BY
1	PRC-710-167	9-23-80	T.S.
2	EC 4245	6/2-81	DAJ
3	4285	9-16-81	RT

TELEDYNE TAC

TITLE: TESTER MODULE ASSY.

ML 1125-10

MATERIAL LIST

ASSEMBLY VARIATIONS → A

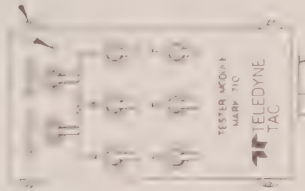
SHEET 2 OF 2

ITEM	PART NUMBER	PART DESCRIPTION	QTY.	QTY.	QTY.	QTY.	QTY.	REFERENCE:
—	C112510	TESTER MODULE ASSY.	X					
1	B112509	ENCLOSURE S.S.	1					
	B112508	ENCLOSURE MOD.	1					
	825637	BUD "MINIBOX"	1					
4	119035	SWITCH SPDT	8					(S1 - S8)
5	117037	CONNECTOR (25 POS) FEMALE	1					(J38)
6	117085	LATCH ASSY	1					
7	117060	CONN., HOOD	1					
8	825471	CABLE, 10 COND, #22AWG	56"					
9	#24 AWG.	WIRE, STRD, PVC	A/R					
10	123129	SNAP, BUSHING	1					
11	123130	SNAP, BUSHING	1					
12								

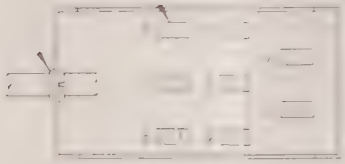
1 2 3 4 5 6 7 8

REV	E C NO / CHG DESCR	DATE	BY
	PRC710-167	9-23-90	RTS
2	EC 4245		

PART OF ITEM 1 (4)



(4) (9) SEE CHART



WIRING CHART

WIRE	FROM	TO	MATERIAL
			22 GAUGE 10 COND. CABLE BELDEN (ITEM 8) (82547)
			STRIP WIRE (ITEM 9)

DO NOT SCALE DRAWING OR PRINT
REMOVE ALL BURRS SHARP EDGES

SCALE 1/1

FIRST USED ON ML-111744

TESTER MODULE ASSY

MATERIAL ML 112510

TREAT/FINISH

C 112510

XX ± 0.10 FRACT ± 1/64 ANG ± 30 MIN
XXX ± 0.05 MM ± SURF

TELEDYNE TAC
WILBURN, MASSACHUSETTS 01801, U.S.A.

TELEDYNE TAC

TITLE: ASS'Y 710 INKER MOUNT

ML 111873

COVER SHEET | DRN. [illegible] DATE 1-21-80 | CHK. DATE | APPR. DATE | SHEET ONE OF 3

NEXT ASSY. NO.	NEXT ASSY. TITLE	PRODUCT	ML VERS.
	OPTION	MARK 710	A & B

REV.	E.C. NO. / CHANGE DESCR.	DATE	BY
1	PRC 710-388	9-18-80	[illegible]
2	PRC 710-302	10/27/80	[illegible]
3	PRC 710-545	12-23-80	[illegible]

"A" - AUTO LIFT MOUNT

"B" - FIXED POSITION MOUNT

TELEDYNE TAC

TITLE: Ass'y 710 INKER MOUNT

ML 111873

MATERIAL LIST

ASSEMBLY VARIATIONS →

SHEET 2 OF 3

ITEM	PART NUMBER	PART DESCRIPTION	A QTY.	B QTY.	QTY.	QTY.	QTY.	REFERENCE:
	D111873A	INKER MOUNT -- AUTO LIFT	X					
	D111873B	INKER MOUNT -- STATIONARY		X				
1	B111494	PIVOT MOUNT	1	–				
2	B111495	PIVOT BLOCK	1	1				
3	A111496	X-KNOB	1	1				
4	A111497	Y-KNOB	1	1				
5	B111498	INKER MOUNT	1	1				
6	A111521	LIFT BUTTON	1	–				
7	A111862	Z SCREW	1	1				
8	B111863	FIXED MOUNT	–	1				
9	A113803	RING, INKER PIVOT LOCK	1	1				
10	83-98-902	KNOB	1	1				SHEAR-LOC
11	9X25-0624	SHOULDER SCREW	1	1				(3/16OD x 3/4LG) SDP
12	ST-4	BELLEVILLE WASHER	1	1				BERG
13	9M66-0903	FLAT WASHER, NYLON, #4	3	3				SDP
14	7Y5-CF2	SHOULDER SCREW	3	3				SDP

1 2 3 4 5 6 7 8

TELEDYNE TAC

TITLE: ASS'Y 710 INKER MOUNT

ML 111873

MATERIAL LIST

ASSEMBLY VARIATIONS →

SHEET 3 OF 3

ITEM	PART NUMBER	PART DESCRIPTION	A QTY.	B QTY.	QTY.	QTY.	QTY.	REFERENCE:
15	SFR 3SS	BEARING, FLANGED .187 x .500	2	2				BARDEN
16	7Q9-08013	BELLEVILLE SPRING WASHER	3	3				SDP
17	LC-032B-12	SPRING	1	1				LEE
18	3/32 X 1/4 LG	ROLL PIN	1	1				
19	CS-13	10-MR SET SCREW	1	1				PIC
20								
21	242	THREAD SEALANT	AR	AR				DEVCON
22	630AA	LUBRIPLATE	AR	AR				FISK BROTHERS
23	B 113024	ADAPTER	1	1				
/	1/16 DIA X 1/4 LG	DOWEL PIN	REF	REF				1 QTY
25								
26	10-32 X 1 LG	SCR. SOC HD CAP SS	2	1				
27	10-32 X 1/2 LG	SCR. SOC HD CAP SS	-	1				
28								
29								
30	4-40 X 1/4	SHCS STAINLESS STL	2	2				
31	8-32 X 1"	SHCS ALLOY	2	2				SHIP AS LOOSE PARTS
32								
33								
34								

TT-ML-2/1

ITEM OF ITEM 15 BELLEVILLE SPRING WASHER (SP. #1)
BELLE WASHER MUST BE YOU TO AS SHOWN
X KNOB MUST ROTATE 360° AND ITEM 4 KNOB

ASSY FIT ITEM 7 2 SCREW AND ITEM 6 KNOB TOGETHER
ION ITEM 3 KNOB, ITEM 4 KNOB AND ITEM 5
SHOWN IN BOTTOM VIEW
5. KEEP ITEM 20 LIFT BUTTON WITH RESTOP ASSY FOR USE
ASSEMBLY.
6. APPLY ITEM 21 242 LOCTITE TO THREADS SPARINGLY (DRY)
7. ON ITEM 16, BELLEVILLE SPRING WASHERS, THE BELLEVILLE
WASHER CLAMP RING
8. THE FOLLOWING ITEMS ARE PART OF THE KNEE KNOB
ASSY, NOT SHOWN ON ASSY DWG
ITEM 16 = 1521 / LIFT BUTTON
ITEM 29 0.138 X 0.250 / 4LR SOC HD CAP SS
ITEM 27 0.138 X 0.250 / 4LR SOC HD CAP SS
ITEM 31 0.132 X 0.40 / SET, SOC HD CAP

TELEDYNE TAC D 673

TELEDYNE TAC

COVER SHEET

TITLE

HEAD ASS'Y, INKER (25°)

ML 104072

PAGE 1 OF 4

NEXT ASSY NO	NEXT ASSY TITLE	PRODUCT USED ON
C14031	25° INKER, HIGH SPEED-HD RING	
C14032	25° INKER, HIGH SPEED- STD	
C14033	25° INKER, HI-SPD. PERFORMANCE BOARD	

DRAWN BY	CHK BY	ENG APPR	MFG APPR
DATE 9-9-76	DATE	DATE	DATE

RL

REV	ECR NO	CHG BY	DATE	CHK BY	DATE
1	3407	[illegible]	9-9-76		
2	3437	RC	11/2/76		
3	4091	JJm	3-2480		

TELEDYNE TAC

TITLE: HEAD ASS'Y, INKER (25°)

ML104072

QUANTITY PER ASSY				ITEM	PART NUMBER	DESCRIPTION	MANUFACTURER	REMARKS REF. DES.
D	C	B	A					
			X		B104072-A	HEAD ASS'Y, INKER (25°)	H1	DOT SIZE .010-.020
		X			B104072-B	HEAD ASS'Y, INKER (25°)	H2	DOT SIZE .005-.015
	X				~~B104072-C~~	~~HEAD ASS'Y, INKER (25°)~~	~~SHEET 1 of 4~~	~~DOT SIZE .005-.015~~
X					B104072-D	HEAD ASSY, INKER (25°)	H1	DOT SIZE .010-.020
1	1	1	1	1	B104071	MOUNT, SOLENOID (25°)		
1	1	1	1	2	A13756	SOLENOID (REWORK)		SP-25 24 VDC
/	/	/	/		3102-1-0310	PLUG, CONNECTOR	CAMBION	2 REQ'D.
/	/	/	/		NO. 14	TUBING, BLK. VINYL		4½" LG.
1	1	1	1	3	A13757	THUMB SCREW, CAPTIVE		
-	-	-	1	4	A14010-A	PLUNGER, INK		
-	-	-	/		A14007	SLEEVE, INK PLUNGER (REWORK)	MAKE FROM ITEM 2 PROTECTIVE CAP	1 REQ'D.
-	-	-	/		.011 DIA.	NYLON MONOFILAMENT LINE		1½ LG REF - BLB TEST
-	1	1	-	5	A14010-B	PLUNGER, INK		
-	/	/	-		A14007	SLEEVE, INK PLUNGER (REWORK)	MAKE FROM ITEM 2 PROTECTIVE CAP	1 REQ'D.

ML

TELEDYNE TAC

TITLE: HEAD ASS'Y, INKER (25°)

ML 104072

QUANTITY PER ASSY D	C	B	A	ITEM	PART NUMBER	DESCRIPTION	MANUFACTURER	REMARKS REF. DES.
/	/	/	-		.008 DIA.	NYLON MONOFILAMENT LINE		1½" LG
-	-	-	1	6	A14043-A	RESERVOIR ASS'Y, INK (25°)		DOT SIZE .010 TO .020
-	-	-	/		A13761-A	NEEDLE (REWORK)	VITA NEEDLE CO. #23 GA 1"	1 REQ'D.
-	-	-	/		A14044	MOUNT, INK RESERVOIR		1 REQ'D.
-	-	1	-	7	A14043-B	RESERVOIR ASS'Y, INK (25°)		DOT SIZE .005 TO .015
-	-	/	-		A13761-B	NEEDLE (REWORK)	VITA NEEDLE CO. #23GA 1"	1 REQ'D.
-	-	/	-		A14044	MOUNT, INK RESERVOIR		1 REQ'D.
1	1	1	1	8	1-72 x 1/8 LG.	SCREW, SOC HD CAP		
1	1	1	1	9	A14930	SCREW, THUMB.		
1	1	1	1	10	A14931	NUT, JAM		
1	1	1	1	11	4-40 x 1/4 LG	SCREW, SOC. HD. CAP		
1	1	1	1	12	#4	LOCKWASHER, SPLIT		
1	1	1	1	13	B104073	COVER, SOLENOID (25°)		
2	2	2	2	14	2-56 x 1/8 LG.	SCREW, BINDING HD.		
~~-~~	~~-~~	-	-	15	~~A14043-C~~	~~RESERVOIR ASS'Y, INK (25°)~~		~~DOT SIZE .005 TO .015~~
-	/	-	-		~~A14043-D~~	~~PEN, INKING~~		~~1 REQ'D~~
-	/	-	-		~~A14044~~	~~MOUNT, INKING PEN~~		~~1 REQ'D~~
1	1	1	1	16	#0-80 x 1/8 LG	FIL. HD. SCR.		
REF	REF	REF	REF			LOCTITE GRADE 307		
REF	REF	REF	REF			NYEBAR TYPE H		

ML

TELEDYNE TAC

TITLE: HEAD ASSY, INKER 25°

ML 104072

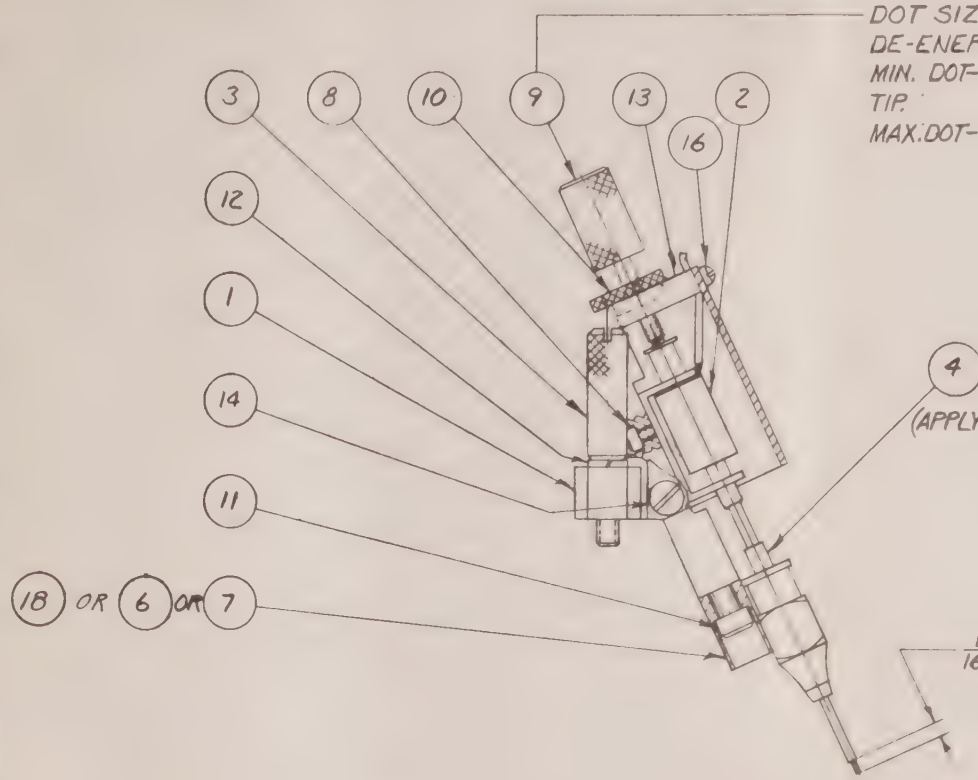
PAGE 4 OF 4

QUANTITY PER ASSY

D	C	B	A	ITEM	PART NUMBER	DESCRIPTION	MANUFACTURER	REMARKS REF. DES.
1	+	-	-	17	A112254	PLUNGER, INK		
/	+	-	-		A14007	SLEEVE INK PLUNGER		
/	+	-	-		.011 DIA	NYLON MONOFILAMENT LINE		2" LG REF 8LB TEST
1	+	-	-	18	A112252	RESERVOIR ASSY, INK (25°)		
/	+	-	-		A112253	NEEDLE REWORK	YALE NEEDLE 25 GA	
/	+	-	-		A14044	MOUNT INK RESERVOIR		

ML

REV NO.	ECO NO	DATE	BY
1	3407	9-1-76	MK
2	3437	11/2/76	MK
3	4091	3-24-80	JPM



DOT SIZE ADJUSTMENT WITH SOLENOID DE-ENERGIZED.
MIN. DOT-PLUNGER FLUSH WITH RESERVOIR TIP.
MAX. DOT-3½ TURNS CCW FROM MIN. DOT SIZE.

B104072-A & B & D

DO NOT SCALE DRAWING	LIMITS UNLESS OTHERWISE SPECIFIED	DRAWN BY	SCALE
REMOVE ALL BURRS AND SHARP EDGES	FRACTIONS ± 1/64 INCH. DECIMALS ± .005 INCH. ANGLES ± 30 MINUTES SURFACES 32	5-5-76	2/1
		CHKD BY	DATE
TAC TRANSISTOR AUTOMATION WOBURN, MASS. MADE IN U.S.A. A TELEDYNE COMPANY		ENG APPR	DATE
RELIABILITY IN AUTOMATION		MFG APPR	DATE

QTY	ITEM	ASSEMBLY DWG	MATERIAL LIST	PRODUCT
		C71226	ML 71226	
		C14033	ML14033	
		C14032	ML14032	
		C14031	ML14031	

TITLE HEAD ASS'Y, INKER (25°)
MATERIAL ML 104072-A,-B,-D
TREATMENT
FINISH
DWG. NO. B104072

MARK 710

VOLUME II

SECTION VI

APPENDICES

	MATERIAL LIST	ASSEMBLY
4 INCH CHUCK	ML109980-B	D109980-B

MARK 710

VOLUME II

SECTION VII

ADDENDA

MARK 710

VOLUME II

SECTION I

LEVEL 1 ASSEMBLY

	MATERIAL LIST	ASSEMBLY	SCHEMATIC
Base Assembly Level 1	ML111741	D111741	
ATC Drive Assembly	ML110433	C110433	
Jackpost Assembly	ML110163	D110163	
X Drive Assembly	ML111288	C111288	
Pneumatic Assembly	ML111182	C111182	B111752
Pressure Regulator Assy.	ML111753	A111753	
X Encoder, Modified	ML111407 REF	D111407 REF	

TELEDYNE TAC

TITLE: BASE ASS'Y. LEVEL 1

ML 111741

COVER SHEET	DRN. IRR DATE 1-16-80	CHK. [illegible] DATE 6-4-81	APPR. [illegible] DATE 6/3/81	SHEET ONE OF 7

NEXT ASSY. NO.	NEXT ASSY. TITLE	PRODUCT	ML VERS.
ML/D111742	BASE ASS'Y-LEVEL 2	710	-A

REV.	E.C. NO./CHANGE DESCR.	DATE	BY
23	ECR 4245	5-28-81	VHS
24	4274	7-28-81	R.J.H.
25	4261	9-14-81	R.J.H.
26	4277	10-9-81	R.J.H.

TELEDYNE TAC

TITLE: BASE ASSY – LEVEL 1

ML 111741

MATERIAL LIST

ASSEMBLY VARIATIONS → A

ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
	D111741A	BASE ASSY – LEVEL 1	X					
1	ML/C110433A	A.T.C. DRIVE ASSY	1					
2	ML/D110163A	JACK POST ASSY	2					
3	ML/D110163B	JACK POST ASSY	1					
4	ML/C111288A	X DRIVE ASSY	1					
5	ML/C111182A	PNEUMATIC ASSY	1					ML/C111182B ALT.
6	ML/A111753A	PRESSURE REG. ASSY	1					
7	ML/B112282A	KNOB ASSY	1					
8								
9	ML/D111407A	X ENCODER – MODIFIED	1					
/	118234	ENCODER ACU-RITE 1	REF					
11								
12								
13	ML/C110271A	SENSOR INTERCONNECTION BD	1					
14	ML/D109919A	MOTOR DRIVERS BD	1					

1 2 3 4 5 6 7 8

TELEDYNE TAC

TITLE: BASE ASSY— LEVEL 1

ML 111741

MATERIAL LIST

ASSEMBLY VARIATIONS → | A | | | | |

SHEET 3 OF 7

ITEM	PART NUMBER	PART DESCRIPTION	QTY.	QTY.	QTY.	QTY.	QTY.	REFERENCE:
15	ML/C109668A	SERVO MOTOR DRIVER BD.	1					
16								
17								
18								
19								
20	J109342	BASE MACHINING	1					
/	109341	BASE CASTING	–					QTY 1 REF
22	C108522	X MOTOR MOUNT MACH.	1					
/	108521	X MOTOR MOUNT CAST	–					QTY 1 REF
24								
25								
26	C110133	MONITOR SUPPORT LEG	1					
27	C111224	GUARD--A.T.C. DRIVE	1					
28								
29								
30	B110757	ATC SENSOR MOUNT	1					
31	B110127	RETAINING BAR	1					
32	B110399	ENCODER MOUNT	1					
33	B110129	BRKT, END COVER	2					
34	B111794	SPACER, RAIL	HR					COMPENSATE FOR CASTING ORDER 2 PER MACHINE

1 2 3 4 5 6 7 8

TT-ML-2/1

TELEDYNE TAC

TITLE: BASE ASSY — LEVEL 1

ML 111741

MATERIAL LIST

ASSEMBLY VARIATIONS → | A | | | | |

SHEET 4 OF 7

ITEM	PART NUMBER	PART DESCRIPTION	QTY.	QTY.	QTY.	QTY.	QTY.	REFERENCE:
35								
36								
37								
38	A110759	GUIDE, ATC	1					
39	A110121	BRKT, CATCH	1					
40								
41	B114863	RAIL, BEARING	1					
42								
43	118105	MOTOR DC	1					ALT MODIFY 118106
44								
45								
46	A114548	BELT TIMING-SOURCE CONTROL	1					
47								
48	A113743	FILTER — SOURCE CONTROL	1					. ALT. ML/A113747
49								
50	120438	LEVELERS, SCREW	4					
51	121248	LEVELERS, MACHINE	5					
52								
53	116195	CATCH, NYLATCH RECEPTACLE	3					
54								

1 2 3 4 5 6 7 8

TT-ML-2/1

TELEDYNE TAC

TITLE: BASE ASSY — LEVEL 1

ML 111741

MATERIAL LIST

ASSEMBLY VARIATIONS → A

SHEET 5 OF 7

ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
55	119611	STAND OFF 2 3/8 LG	2					
56								
57	119513	SPACER 1/4 LG	4					
58								
59								
60	121864	Q.D. BULKHEAD FITTING 1/8 HOSE	2					
61								
62	118830	CLAMP MINIATURE	2					
63	117237	CLAMP 1/4"	2					
64	123626	UNI-CLAMP	5					
65	825399	TUBING, TYGON - 12" LG.	AR					
66	825399	TUBING, TYGON - 20" LG.	AR					
67	825399	TUBING, TYGON - 6" LG	AR					
68	825399	TUBING, TYGON - 15" LG.	AR					
69	825399	TUBING, TYGON - 6" LG.	AR					
70								
71								
72								
73								
74	1/4	WASHER, FLAT	11					

1 2 3 4 5 6 7 8

TELEDYNE TAC

TITLE: BASE ASSY — LEVEL 1

ML 111741

MATERIAL LIST

ASSEMBLY VARIATIONS → A

SHEET 6 OF 7

ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
75	4-40 X 3/8 LG	SCR, B.H.M.	10					
76								
77	6-32 X 3/8 LG		4					
78	6-32 X 1/2 LG		2					
79	10-32 X 3/8 LG	SCR, B.H.M.	3					
80								
81	1/4-20 X 1/2 LG	SCR, F.H	2					
82								
83	8-32 X 1/4 LG	SCR, SOC. HD.	4					
84								
85	8-32 X 5/8 LG		18					
86	8-32 X 1 1/8 LG		2					
87	10-32 X 3/4 LG		4					
88	1/4-20 X 7/8 LG		4					
89	1/4-20 X 1 3/16 LG		5					
90	1/4-20 X 1 1/4 LG		12					
91	6-32 X 3/4 LG		2					
92	6-32 X 3/16 LG	SCR, SOC HD	2					
93	#10	LOCK WASHER	2					
94	#1/4	SPLIT LOCK WASHER	12					

TELEDYNE TAC

TITLE: BASE ASSY — LEVEL 1

ML 111741

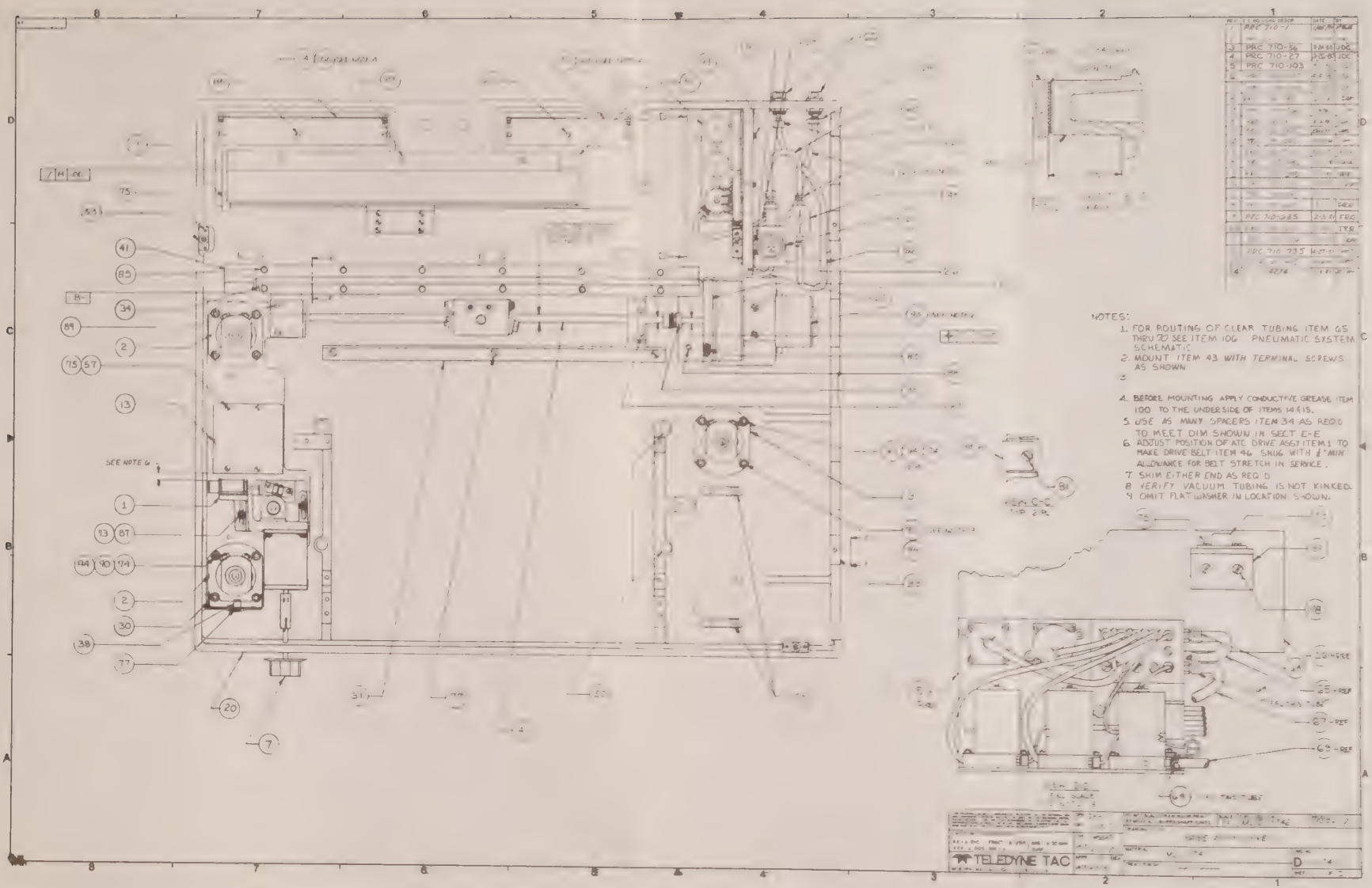
MATERIAL LIST

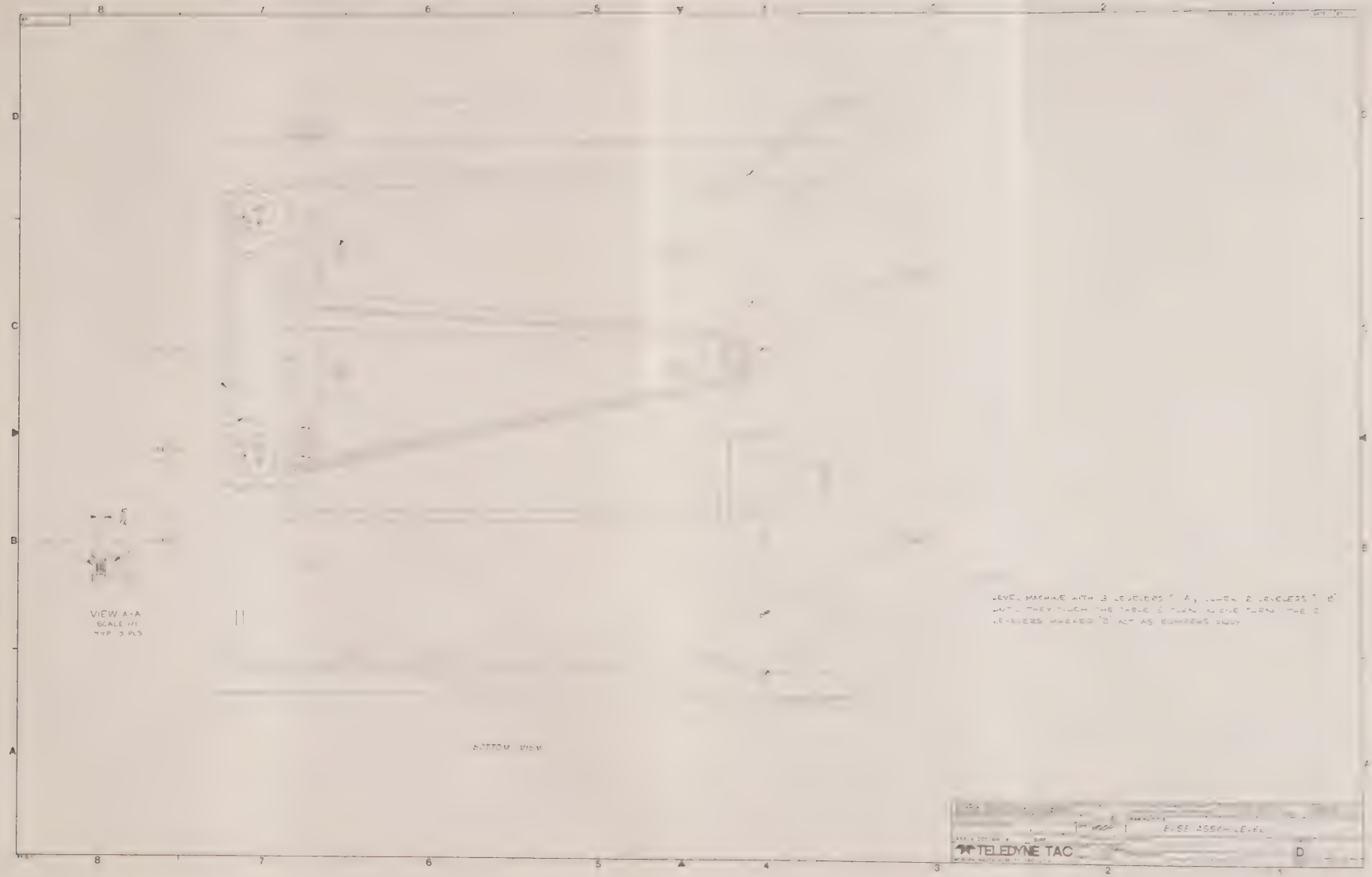
ASSEMBLY VARIATIONS → A

ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
95	8-32 X 3/16 LG	SETSCREW (HEX DRIVE)	2					
96								
97	3/8-16	NUT, HEX	9					
98								
99								
100	825406	CONDUCTIVE GREASE	AR					
101								
102								
103								
104								
105								
106	B111752	PNEUMATIC SYS. SCHEM	REF					
107								
108								
109								
110								
111								
112								
113								
114								

1 2 3 4 5 6 7 8

TT-M.


NOTES:
1. FOR ROUTING OF CLEAR TUBING ITEM 65 THRU 70 SEE ITEM 106 PNEUMATIC SYSTEM SCHEMATIC
2. MOUNT ITEM 43 WITH TERMINAL SCREWS AS SHOWN
4. BEFORE MOUNTING APPLY CONDUCTIVE GREASE ITEM 100 TO THE UNDERSIDE OF ITEMS 14 & 15.
5. USE AS MANY SPACERS ITEM 34 AS REQ'D TO MEET DIM SHOWN IN SECT E-E
6. ADJUST POSITION OF ATE DRIVE ASSY ITEM 1 TO MAKE DRIVE BELT ITEM 46 SNUG WITH 1/8" MIN ALLOWANCE FOR BELT STRETCH IN SERVICE.
7. SHIM EITHER END AS REQ'D
8. VERIFY VACUUM TUBING IS NOT KINKED.
9. OMIT FLAT WASHER IN LOCATION SHOWN.
SEE NOTE 6
TELEDYNE TAC


VIEW A-A
SCALE 1/1
TYP 3 PLS
BOTTOM VIEW
LEVEL MACHINE WITH 3 LEVELERS " A " WHEN 2 LEVELERS " B " UNIT THEY TOUCH THE TABLE . TURN ALONE TURN THE 2 LEVELERS MARKED "B" ACT AS BUMPERS ONLY
TELEDYNE TAC

TELEDYNE TAC

TITLE: A.T.C. DRIVE ASSY

ML110433

COVER SHEET	DRN.	DATE	CHK.	DATE	APPR.	DATE	SHEET ONE OF 4
	JS	5-10-79	RLP	6-1-81	DAS	6/3/81	

NEXT ASSY. NO.	NEXT ASSY. TITLE	PRODUCT	ML VERS.
ML/D111741	BASE ASSY	MARK 710	A

REV.	E.C. NO./CHANGE DESCR.	DATE	BY
1	Sheet 4 Added It 32 was 26; It 23 deleted It 6 was A110435 Also see Assy Dwg.	12-10-79	DAS
2	PRC 710-1	1-18-80	RLP
3	PRC 710-44 See obs print file	3-6-80	DAS
4	PRC 710-275	6-23-80	RR
5	PRC 710-281	6-24-80	DAS
6	PRC 710-457	10/28/80	DM
7	PRC 710-468	11/17/80	DM
8	PRC 710-743	5-1-81	DM3
9	EC 4245	5-27-81	IRR
10	4261	9-14-81	R.H.

TELEDYNE TAC

TITLE A.T.C. DRIVE ASSY

ML110433

QUANTITY PER ASSY

A	ITEM	PART NUMBER	DESCRIPTION	MANUFACTURER	REMARKS REF. DES.
		C110433	ATC DRIVE ASSY.		
1	1	C109678	CAST. & MACH. ATC DRIVE		
1	/	109677	ATC CASTING		
1	2	B110108	BEARING CAP		
1	3	B110107	DRUM		
1	4	122156	GEAR BLANK, 1" DIA, PIN HUB		ALT: B112076
1	5	A110105	SPRING		
1	6	ML/C110908	CABLE ASSY – A.T.C. & BRIDGE SENSORS		
1	7	A110106	SPRING BLOCK		
1	8	A110104	SENSING DISC		
1	9	A110619	WORM GEAR - REWORK		

ML

TELEDYNE TAC

TITLE: ATC DRIVE ASSY

ML110433

QUANTITY PER ASSY

A	ITEM	PART NUMBER	DESCRIPTION	MANUFACTURER	REMARKS REF. DES.
1	/	120542	WORM GEAR		
1	10	A110436	FRICTION PAD		
1	11	A110437	WEAR TAPE		
1	12	A110620	WORM, TREATED		
1	/	121365	WORM		
1	14	121783	MOTOR, SLO-SYN		
1	15	120259	THRUST BEARING B5-3-SS, BERG		
1	16	123075	SHAFT		
1	17	120506	COLLAR		
3	18	120201	BALL BEARING		
1	19	123113	SPRING, COMPRESSION		
1	20	123176	SOLENOID		
1	21	114338	SPROCKET		
1	22	123333	SHAFT SPACER		.063 THK
2	23	123335	SHAFT SPACER		.250 THK
4	24	8-32UNC-2A x 1/2	SCR. SOC. HD.		
2	25	4-40UNC-2A x 5/16	SCR. B.HD.		
4	26	4-40UNC-2A x 7/16	SCR. B. HD		
2	27	4-40UNC-2A x 1/4	SCR. SOC. HD.		
A/R	28	825209	EPOXY		

ML

TELEDYNE TAC

TITLE: A.T.C. DRIVE ASSY

ML 110433

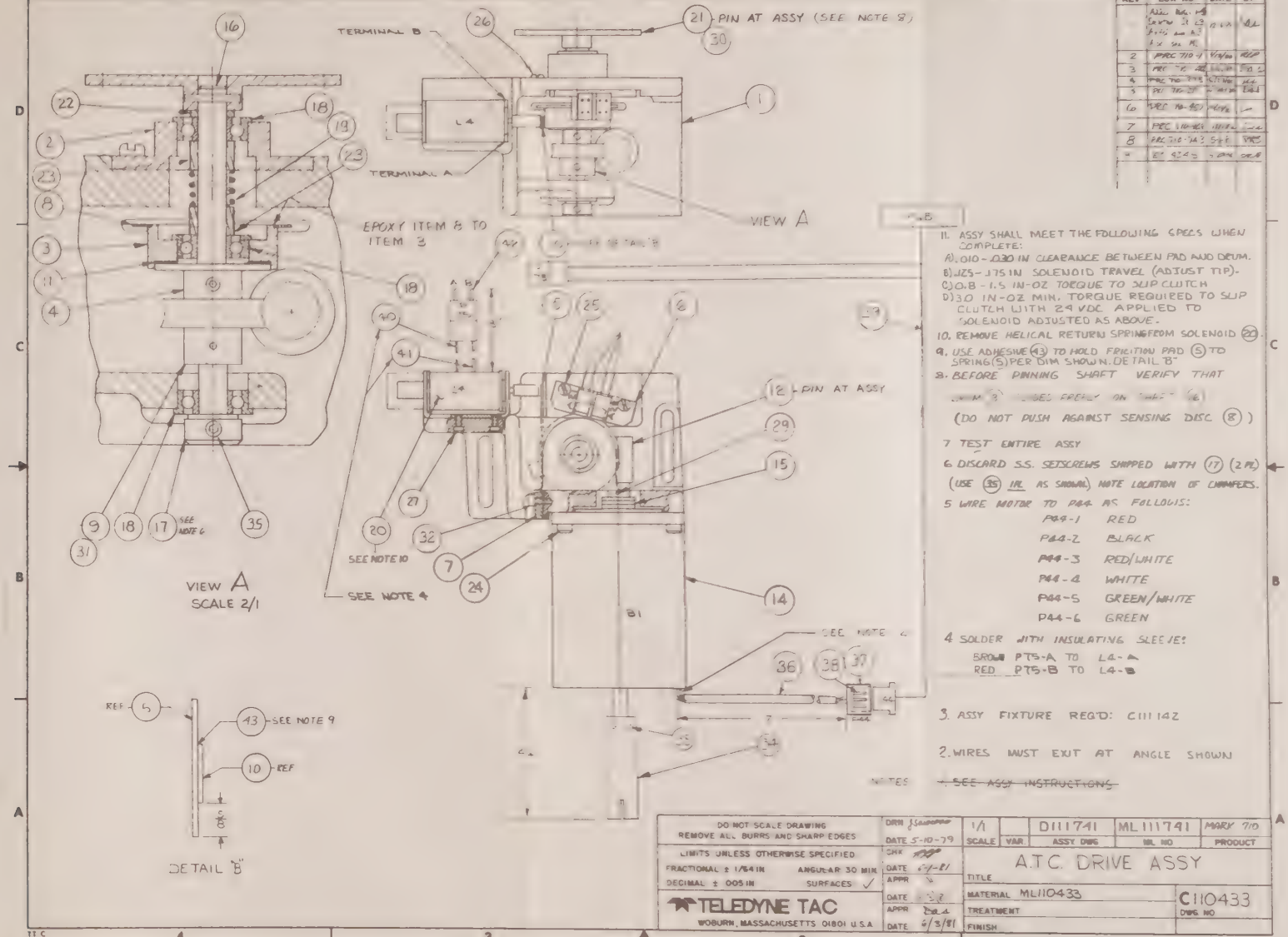
MATERIAL LIST

SHEET 4 OF 4

ITEM	PART NUMBER	PART DESCRIPTION	ASSEMBLY VARIATIONS → A	QTY.	QTY.	QTY.	QTY.	QTY.	REFERENCE:
	1 2 3 4 5 6 7 8								
29	3/32 x 3/8 LG	ROLL PIN		1					
30	1/16 x 7/16 LG	ROLL PIN		1					
31	3/32 X 5/8 LG	ROLL PIN		1					
32	4-40 x 3/8 LG	CAPSCREW, SOC HD		.1					
33	C111142	FIXTURE -- A.T.C DRIVE WORM		REF					
34	A111388	SLEEVE MOTOR SHAFT		1					
35	6-32 x 1/8 LG	SETSCREW		3					
36	825392	PVC TUBING		AR					
37	115048	CONNECTOR, 6 PIN		1					MLI= 115049 (P44)
38	115027	PIN, AWG. 18-24		6					
39	ML/B110865	CABLE-BRIDGE MOTOR & SOLENOID		1					
40	#22AWG	BRN WIRE, KYNAR INSUL		AR					
41	#22AWG	RED WIRE, KYNAR INSUL		AR					
42	121482	CONNECTOR, 2 PIN		1					P75
43	825383	ADHESIVE		AR					ALT ARON ALPHA CE-486 GOODYEAR - PLIOBOND
44									
45									
46									

1 2 3 4 5 6 7 8

TT-ML-2/1



REV	ECR NO	DATE	BY
	ADD REF. MS Renew 2 & 3 Fits on MS 4 & 5 M.	11-17-78	MLL
2	PREC 710-4	1/24/80	RDP
3	PREC 710-[illegible]	[illegible]	[illegible]
4	PREC 710-[illegible]	5/7/80	MLL
5	PREC 710-[illegible]	5-30-80	MLL
6	PREC 710-[illegible]	6/4/80	MLL
7	PREC 710-[illegible]	[illegible]	[illegible]
8	PREC 710-743 SHT	9/8/80	MLL
9	ECR 8244	2/27/81	DRM

11. ASSY SHALL MEET THE FOLLOWING SPECS WHEN COMPLETE:
   A) .010 - .030 IN CLEARANCE BETWEEN PAD AND DRUM.
   B) .125 - .175 IN SOLENOID TRAVEL (ADJUST TIP).
   C) 0.8 - 1.5 IN-OZ TORQUE TO SLIP CLUTCH
   D) 3.0 IN-OZ MIN. TORQUE REQUIRED TO SLIP CLUTCH WITH 24 VDC APPLIED TO SOLENOID ADJUSTED AS ABOVE.
10. REMOVE HELICAL RETURN SPRING FROM SOLENOID (22).
9. USE ADHESIVE (43) TO HOLD FRICTION PAD (5) TO SPRING (5) PER DIM SHOWN. DETAIL "B"
8. BEFORE PINNING SHAFT VERIFY THAT [illegible] (DO NOT PUSH AGAINST SENSING DISC (8))
7. TEST ENTIRE ASSY
6. DISCARD S.S. SETSCREWS SHIPPED WITH (17) (2 PL) (USE (35) IR. AS SHOWN) NOTE LOCATION OF CHAMFERS.
5. WIRE MOTOR TO P44 AS FOLLOWS:

P44-1	RED
P44-2	BLACK
P44-3	RED/WHITE
P44-4	WHITE
P44-5	GREEN/WHITE
P44-6	GREEN

4. SOLDER WITH INSULATING SLEEVE:
   BROWN PTS-A TO L4-A
   RED PTS-B TO L4-B
3. ASSY FIXTURE REQ'D: C111142
2. WIRES MUST EXIT AT ANGLE SHOWN

NOTES ~~1. SEE ASSY INSTRUCTIONS~~

DO NOT SCALE DRAWING REMOVE ALL BURRS AND SHARP EDGES	DRN J.Sampson DATE 5-10-79	1/1 SCALE	VAR	D111741 ASSY DWG	ML111741 MIL NO	MARK 7/10 PRODUCT
LIMITS UNLESS OTHERWISE SPECIFIED FRACTIONAL ± 1/64 IN ANGULAR 30 MIN DECIMAL ± .005 IN SURFACES ✓	CHK [illegible] DATE 6/1-81 APPR [illegible] DATE [illegible] APPR [illegible] DATE 6/3/81	A.T.C. DRIVE ASSY				
TELEDYNE TAC WOBURN, MASSACHUSETTS 01801 U.S.A.		TITLE				
		MATERIAL ML110433				C110433 DWG NO
		TREATMENT				
		FINISH				

TELEDYNE TAC

TITLE: ASSY: JACK POST

ML110163

COVER SHEET	DRN. J.S. DATE 4/9/79	CHK. RHP DATE 6-1-81	APPR. IH DATE 6/3/81	SHEET ONE OF 3

NEXT ASSY. NO.	NEXT ASSY. TITLE	PRODUCT	ML VERS.
ML/D111741	ASSY: BASE	MARK 710	A

REV.	E.C. NO./CHANGE DESCR.	DATE	BY
1	ADDED: ITEM 19, HOLE PLUG	12/3/79	R.B.
2	REDRAWN & RENUMBERED ITEM 20 WAS NSK#RIW1605-RH— ITEM 21 WAS NSK#RIW16-RH— ITEM 22 WAS 19	1/11/80	R.B.
3	PRC 710-1	1-18-80	RHP
4	PRC 710-53	3-12-80	DAS
5	PRC 710-329	10-7-80	DMA
6	PRC 710-625	2-18-81	IRR
7	PRC 710-609	2-18-81	IRR.
8	ECR 4245	5-27-81	DMA

TELEDYNE TAC

TITLE: ASSY: JACK POST

ML 110163

MATERIAL LIST

ASSEMBLY VARIATIONS →

SHEET 2 OF 3

ITEM	PART NUMBER	PART DESCRIPTION	A QTY.	B QTY.	QTY.	QTY.	QTY.	REFERENCE:
	D110163-A		X					
	D110163-B			X				
1	C111403	JACK HOUSING	1	1				
2	110167	CASTING	1	1				
3	B110165	JACK BEARING SLEEVE	1	1				
4	B110166	JACK BEARING MOUNT	1	1				
5	B110164	SHAFT	1	–				
6	B110170	SHAFT, GROOVED	–	1				
7	123380	WAVE SPRING	1	1				
8	123418	BALL BUSHING	1	1				
9	122061	NEEDLE THRUST BEARING	2	2				
10	123573	THRUST WASHER	2	2				
11	120323	NEEDLE ROLLER BEARING	1	1				
12	B110183	TIMING GEAR – MODIFIED	1	1				
13	119337	TIMING GEAR	REF	REF				
14	1/4-20 UNC-2A x 1 1/2 LG	SCREW, SOC. HD	1	1				

1 2 3 4 5 6 7 8

TT-ML-2/1

TELEDYNE TAC

TITLE: ASSY: JACK POST

ML 110163

MATERIAL LIST

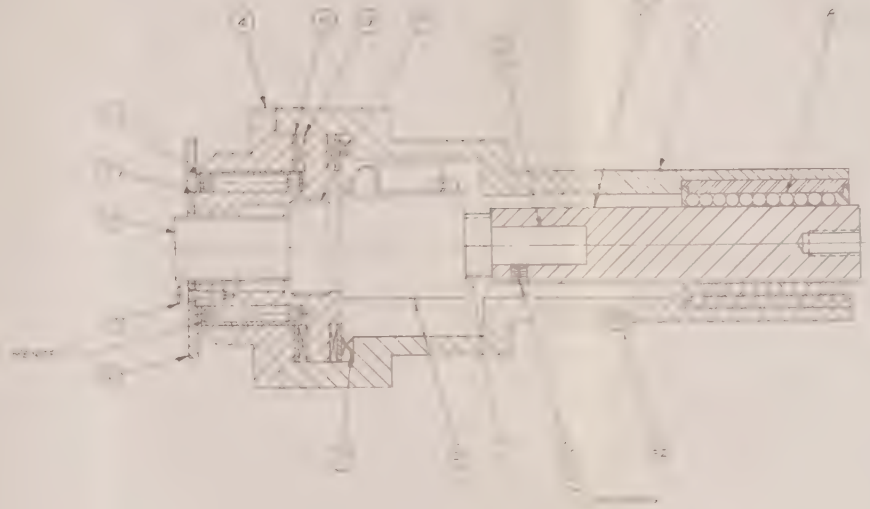
ASSEMBLY VARIATIONS → A B

SHEET 3 OF 3

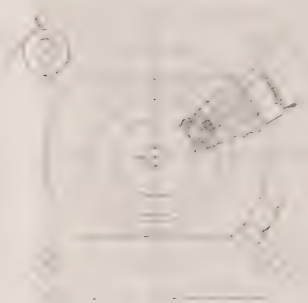
ITEM	PART NUMBER	PART DESCRIPTION	A QTY.	B QTY.	QTY.	QTY.	QTY.	REFERENCE:
15	8-32 UNC-2A x 3/16 LG	SET SCREW	1	1				
16	1/4-20 UNC-2B	NUT, HEX	1	1				
17	4-40 UNC-2A x 3/8 LG	SCREW, SOC HD	3	3				
18	120322	ADJUSTING SCREW	2	2				
19	B110173	BALL SCREW REWORK	1	1				
20	117138	BALL SCREW - 4.00 LG	1	1				
21	119406	BALL SCREW NUT	1	1				
22	118829	HOLE PLUG	1	1				
23								
24	825384	THREAD SEALANT	AR	AR				
25	825387	THREAD SEALANT	AR	AR				
26	825389	LOCQUIC PRIMER	AR	AR				
27	825388	LUBRIPLATE	AR	AR				
28								
29								
30								
31								
32								
33								
34								

1 2 3 4 5 6 7 8

TT-ML-2/1



(16) DISCARD AT NEXT ASSY



. PRESS ITEM (7) NEEDLE ROLLER BEARING STAMPED END OUT, FLUSH WITH END OF TABLE BEARING MOUNT ITEM (4) AS SHOWN.
. TIGHTEN ADJUSTING SCREW (8), LEAVE LOOSE UNTIL ASSEMBLY IS MADE AT HEP ANL.
. APPLY ITEM 20 PRIMER T SURFACES SHOWN. ASSEMBLE WITHIN 2 MINUTES AFTER APPLYING "TEFLOS SEALAL"

TELEDYNE TAC
WOBURN, MASSACHUSETTS 01801 U.S.A.

SURFACES: ✓

DATE 6/3/71
APPR
DATE 6/3/71

SCALE | WGT | ASSY DWG | MIL NO

JACK POST ASSY

TITLE

MATERIAL MIL #10163

TREATMENT

FINISH

D110163
DWG NO

TELEDYNE TAC

TITLE: ASSY: "X" DRIVE

ML111288

COVER SHEET

DRN.	DATE	CHK.	DATE	APPR.	DATE
R.B.	10/17/79	[illegible]	6-1-81	IH [illegible]	6/3/81

SHEET ONE OF 2

NEXT ASSY. NO.	NEXT ASSY. TITLE	PRODUCT	ML VERS.
ML/D111741	ASSY: BASE	MARK 710	A

REV.	E.C. NO. / CHANGE DESCR.	DATE	BY
1	PRC 710-1	1/21/80	RLP
2	PRC 710-50	2/19/80	PAL
3	ECR 4245	5-28-81	DHB

TT-ML-1/1

TELEDYNE TAC

TITLE: ASSY: "X" DRIVE

ML 111288

MATERIAL LIST

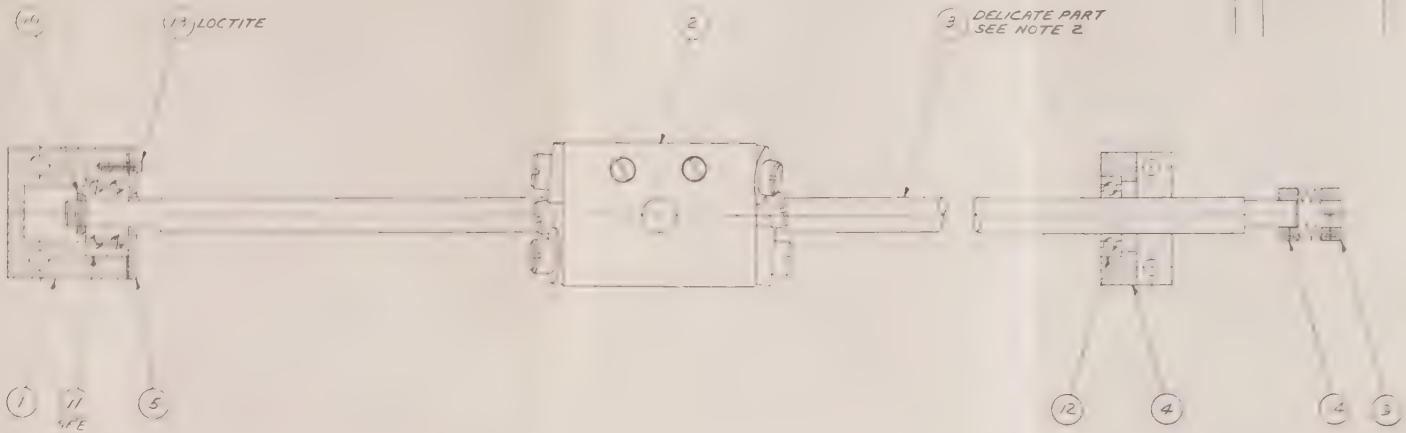
ASSEMBLY VARIATIONS → A

SHEET 2 OF 2

ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY.	QTY.	QTY.	QTY.	REFERENCE:
	C111288	"X" DRIVE ASSY	X					
1	B110131	MOUNT, "X" SHAFT	1					
2	ML/C110212	"X" DRIVE NUT ASSY	1					
3	B109681	"X" SHAFT	1					
4	B110130	SUPPORT, X SHAFT	1					
5	A110124	BEARING CAP X	1					
6								
7								
8								
9	117659	"X" COUPLING	1					
10	120391	BEARING NUT (BEARHUG)	1					
11	115141	BEARING, BALL	1					
12	120162	BEARING, BALL	1					
13	#6-32 X 3/8 LG	SCREW, SOC. HD. CAP	3					
14	#8-32 X 3/16 LG	SETSCREW	2					

1 2 3 4 5 6 7 8

REV	E.C. NO./CHG. DESCR	DATE	BY
1	PRC 710-1	1/24/80	[illegible]
2	PRC 710-50	2/19/80	[illegible]
3	ECR 4245	5/28/81	[illegible]



NOTES.

1. INSTALL BEARINGS BACK-TO-BACK- FACES WITH PART NO'S. INSIDE ("DB" MOUNTING) DO NOT MIX UP MATCHED PAIRS.
2. NICKS ON ½" SHAFT SURFACE WILL INTERFERE WITH OPERATION. SEE ASSEMBLY INSTRUCTIONS.

TELEDYNE TAC WOBURN, MASSACHUSETTS C.80. U.S.A.	DRN RB DATE 10/17/79	DO NOT SCALE DRAWING OR PRINT REMOVE ALL BURRS, SHARP EDGES	SCALE FIRST USE ON ML/D111791
UNLESS SPECIFIED: XX ± .010 FRACT ± 1/64 ANG ± 1° MACH SURF XXX ± .005 MM ±	CHK RJP DATE 6-1-81	DRAWING TITLE "X" DRIVE ASSEMBLY	PROJ MARK 710
	APPR DATE 6/3/81	MATERIAL ML 111288 TREAT, F.N.S.	DWG NO C.111288 SHEET 1 OF 1

TELEDYNE TAC

TITLE: ASSY: PNEUMATIC

ML111182

COVER SHEET	DRN. R.G.B. DATE 9/28/79	CHK. [illegible] DATE 6-1-81	APPR. [illegible] DATE 6/3/81	SHEET ONE OF 3

NEXT ASSY. NO.	NEXT ASSY. TITLE	PRODUCT	ML VERS.
ML/D111741	ASSY: BASE	MARK 710	A

REV.	E.C. NO./CHANGE DESCR.	DATE	BY
1	See dwg	12/18/79	[illegible]
2	PRC 710-1 RELEASE	1/22/80	DAS
3	PRC 710-10 It 6 qty was 5 It 8 qty was 4. See dwg.	1/22/80	DAS
4	PRC 710-18 Added It 3 (REF) Deleted It 9 was 832NKA Nut, Press It 20 was 8-32 Nut, Hex	1/28/80	DAS
5	PRC710-93	3-12-80	RT
6	PRC 710-548	12-29-80	DMM
7	PRC 710-192	12-31-80	DRL
8	PRC 710-570	1-10-81	DMM
9	PRC 710-615	2-10-81	DRL
10	ECR 4245	5-28-81	DMS
11	4252	6-22-81	R.J.H.

TT-ML-1/1

TELEDYNE TAC

TITLE: ASSY: PNEUMATIC

ML 111182

MATERIAL LIST

SHEET 2 OF 3

ITEM	PART NUMBER	PART DESCRIPTION	ASSEMBLY VARIATIONS → A QTY.	B QTY.	QTY.	QTY.	QTY.	REFERENCE:
	C111182A	ASSY: PNEUMATIC	X					
	C111182B	ASSY PNEUMATIC		X				
1	B110756	MANIFOLD	1	1				
2	C110754	BRACKET, PNEUMATIC	1	1				
	118817	NUT, CLINCH	REF	REF				
4	116463	VALVE SOLENOID 24V	—	3				
5	121843	VALVE, SOLENOID	3	—				
6	115764	FITTING W/GASKET 10-32-16	6	2				
7	115765	FITTING W/GASKET 10-32-8	9	7				
8	115767	PLUG 10-32 W/GASKET	3	3				
9	121482	CONNECTOR, 2 PIN	3	3				
10	825397	SENSOR, PRESSURE 105 IN H_2O	1	1				
11	825398	VAC. SENSOR PRESSURE 195 IN H_2O	1	1				
12	122056	CLAMP	1	1				
13	121184	RESTRICTOR, VARIABLE	1	1				
14	118131	CLAMP	1	1				

1 2 3 4 5 6 7 8

TELEDYNE TAC

TITLE: ASSY: PNEUMATIC

ML 111182

MATERIAL LIST

ASSEMBLY VARIATIONS → A B

SHEET 3 OF 3

ITEM	PART NUMBER	PART DESCRIPTION	QTY. A	QTY. B	QTY.	QTY.	QTY.	REFERENCE:
15	6-32 X 5/8 LG	SCREW, F.H.	6	—				
16	825399	TUBING	AR	AR				
17	825400	TUBING	7'	7'				
18	#6	WASHER, SPLIT LOCK	6	—				
19	4-40 X 5/8 LG	SCREW, SOC. HD CAP	4	4				
20	6-32	NUT, HEX, SMALL PATTERN	6	—				
21	6-32 X 1/2 LG	SCREW, FIL HD	2	2				
22	825402	FITTING, 1/8 THD, 1/8 BARB,	—	3				
23	825401	TUBING	AR	AR				
24	825384	THREAD SEALANT	AR	AR				
25	825393	THREAD SEALANT	AR	AR				
26	825403	FITTING, 1/8 THD, 1/16 BARB	—	3				
27	123626	UNI-CLAMP	8	8				
28	118535	CLAMP, HOSE, PRESS ON	8	8				
29								
30	8-32 X 3/16 LG	SCREW, F.H.	—	6				
31	8-32 X 5/16 LG	SCREW, F.H.	—	1				
32	8	WASHER SPLIT LOCK	—	1				
33	8-32	NUT, HEX	—	1				
34								

1 2 3 4 5 6 7 8

TT-ML-2/1

REV	E.C. NO / CHG DESCR	DATE	BY
	ADDED NOTE	7-17-79	MAL
2	PRC 710-1 Release	7-27-80	BAS
3	Y-Axis Air Brg. Vac. was same PRC 710-10	9-23-80	BAS
4	PRC 710-18	11-10-80	DMS
5	PRC 710-93	3-12-80	BT
6	PRC 710-518	10-24-80	DM
7	PRC 710-192	12-22-80	ERR
8	PRC 710-570	1-10-81	ERR
9	PRC 710-615	2-9-81	IRR
10	ECR 4245	5-13-81	JMS
11	4252	6-12-81	PJH

SEE NOTE 1 (10) (11) (12) (1) (21) (24) (28) SEE NOTE 3 (5) (6) (7) (25) SEE NOTE 2

(24) (19) (27)

CONNECT ONE BLACK WIRE TO EACH TERMINAL A & B LEAVE 6" LONG TYP L1, L2, L3

(16) MARK ON CABLE

(9) TYP L1, L2, L3

(15) (20) (8) (13) (12) (17) (14)

L3 L2 L1

PARTIAL SIDE VIEW

VIEW A-A

(28) REF SEE NOTE 3

LEAVE ONE PORT OPEN ON EACH VALVE AS SHOWN

A2 PRES SWITCH

A1 VAC SWITCH

VACUUM

VACUUM INPUT (REF)

PRES. INPUT (AFTER REGULATOR)

PRESSURE CYLINDER
Y-AXIS AIR BRG VACUUM
CHUCK VACUUM
FINGERS VACUUM
Z-STG HSG VACUUM

BEND LINE

PRES. INPUT (REF) (BEFORE REGULATOR)

REF (27) (28) REF (3)

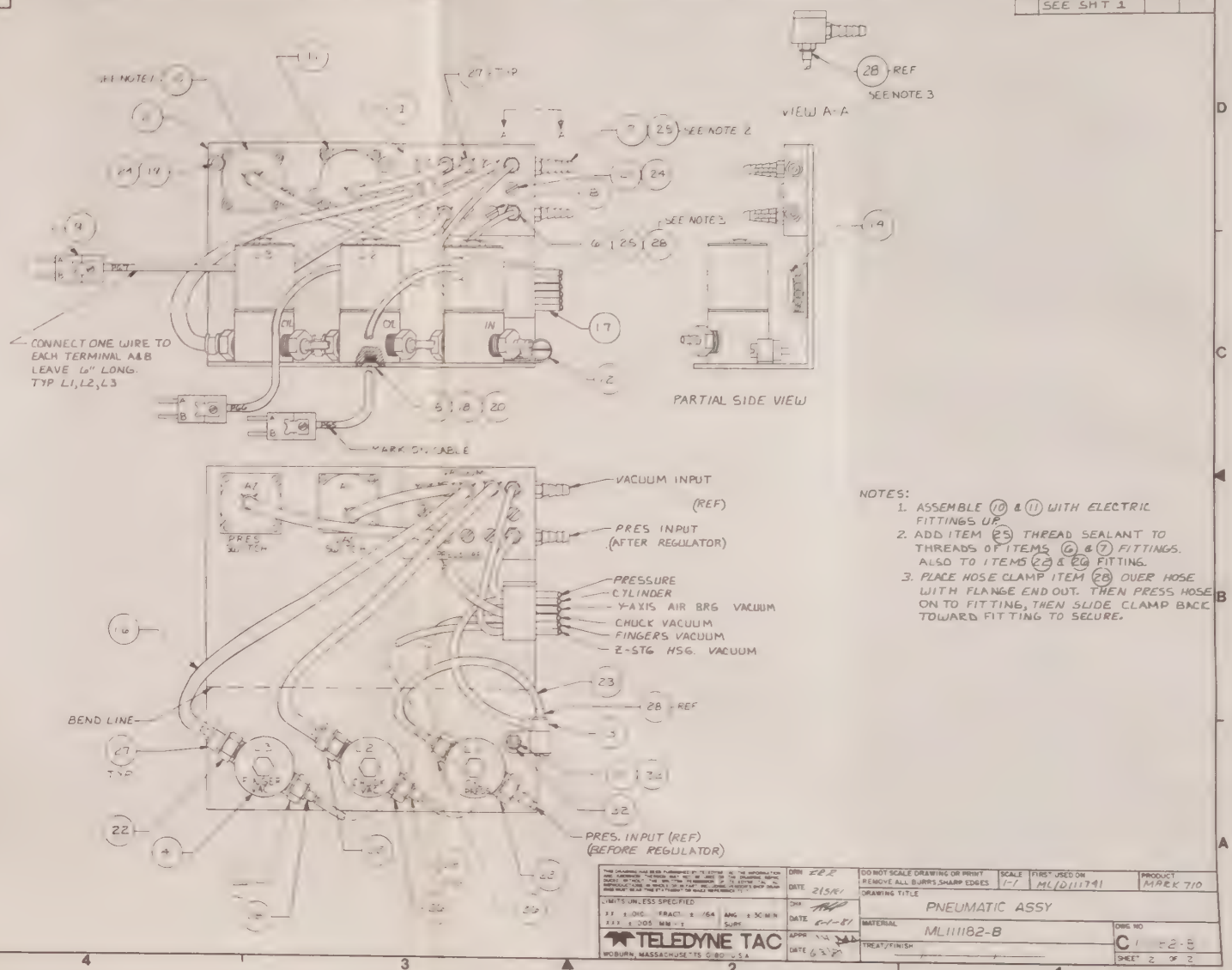
L3 FINGER VAC L2 CHUCK VAC L1 CYL PRESS

(5) (6) (7) (25) (25) (6) (25) (7) (25)

NOTES:

1. ASSEMBLE (10) & (11) WITH ELECTRIC FITTINGS UP.
2. ADD ITEM (25) THREAD SEALANT TO THREADS OF ITEM (6) & (7) FITTINGS.
3. PLACE HOSE CLAMP ITEM (28) OVER HOSE WITH FLANGE END OUT. THEN PRESS HOSE ONTO FITTING, THEN SLIDE CLAMP BACK TOWARD FITTING TO SECURE.

DRN P.E.B. DATE 9/27/79	DO NOT SCALE DRAWING OR PRINT REMOVE ALL BURRS, SHARP EDGES	SCALE 1:1	FIRST USED ON ML/D1117741	PRODUCT MARK 710
CHK TMD DATE 5-1-81	DRAWING TITLE PNEUMATIC ASSY.			
APPR DATE 6/3/81	MATERIAL ML/111182-A		DWG NO C 111182-A	
TELEDYNE TAC WOBURN, MASSACHUSETTS 01801 U.S.A.	TREAT/FINISH		SHEET 1 OF 2	



NOTES:

1. ASSEMBLE (10) & (11) WITH ELECTRIC FITTINGS UP.
2. ADD ITEM (25) THREAD SEALANT TO THREADS OF ITEMS (6) & (7) FITTINGS. ALSO TO ITEMS (28) & (29) FITTING.
3. PLACE HOSE CLAMP ITEM (28) OVER HOSE WITH FLANGE END OUT. THEN PRESS HOSE ON TO FITTING, THEN SLIDE CLAMP BACK TOWARD FITTING TO SECURE.

REV	E.C.NO./CHG DESCR	DATE	BY
	SEE SHT 1		

DRN	EEE
DATE	2/5/81
CHK	
DATE	6-1-81
APPR	
DATE	6-3-81

DO NOT SCALE DRAWING OR PRINT. REMOVE ALL BURRS, SHARP EDGES

SCALE 1-1

FIRST USED ON ML(D)11741

PRODUCT MARK 710

LIMITS UNLESS SPECIFIED
.X ± .010 FRACT. ± 1/64 ANG. ± 30 MIN
.XXX ± .005 MIN SURF.

TELEDYNE TAC
WOBURN, MASSACHUSETTS 01801 U.S.A.

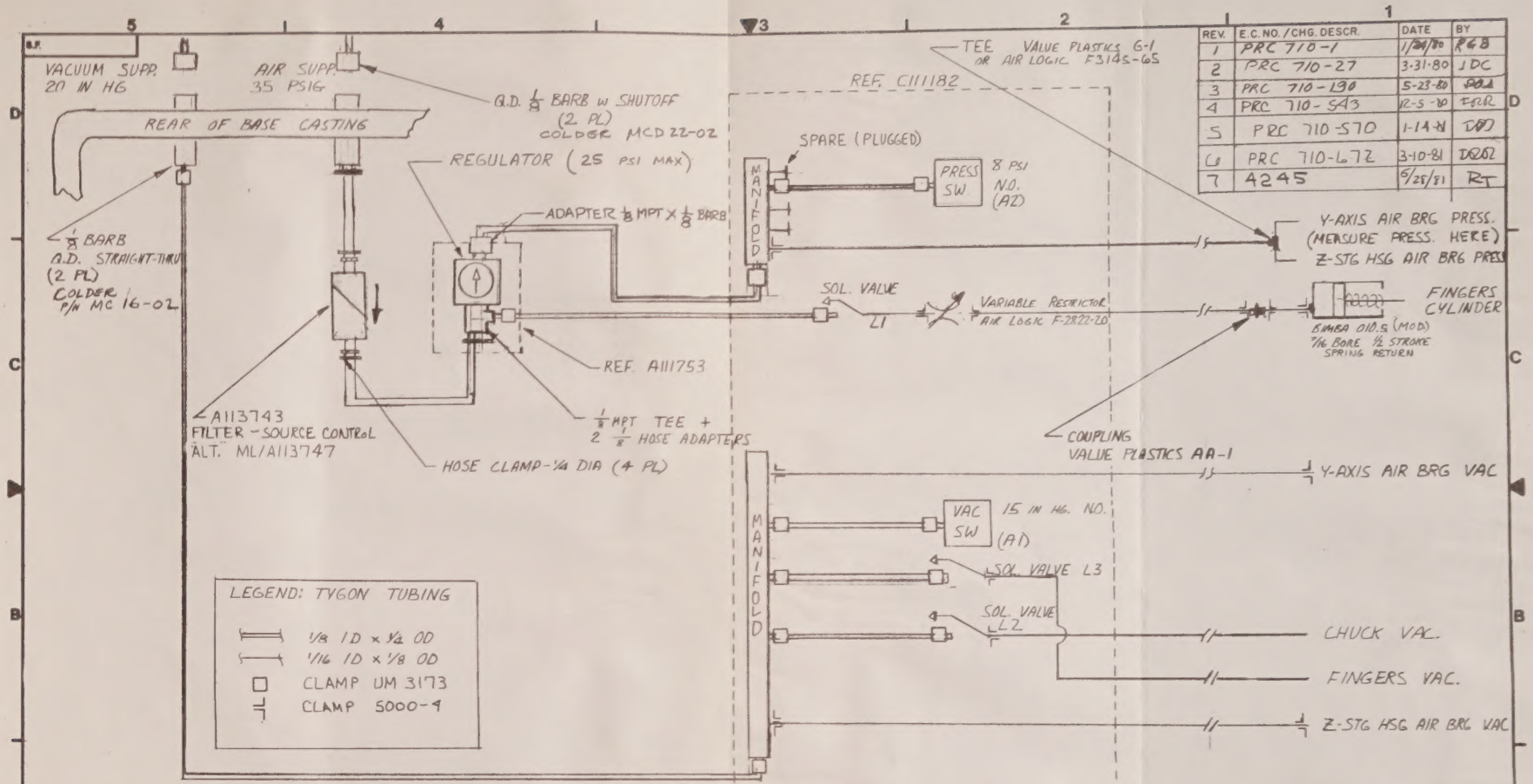
DRAWING TITLE: PNEUMATIC ASSY

MATERIAL: ML11182-B

TREAT/FINISH:

DWG NO C 11182-B

SHEET 2 OF 2


VACUUM SUPP. 20 IN HG
AIR SUPP. 35 PSIG
REAR OF BASE CASTING
O.D. 1/8 BARB w SHUTOFF (2 PL) COLDER MCD 22-02
REGULATOR (25 PSI MAX)
1/8 BARB O.D. STRAIGHT-THRU (2 PL) COLDER P/N MC 16-02
ADAPTER 1/8 MPT X 1/8 BARB
A113743 FILTER - SOURCE CONTROL ALT. ML/A113747
HOSE CLAMP - 1/4 DIA (4 PL)
REF A111753
1/8 MPT TEE + 2 1/8 HOSE ADAPTERS
REF. C111182
TEE VALVE PLASTICS G-1 OR AIR LOGIC F3145-GS
SPARE (PLUGGED)
MANIFOLD
PRESS SW
8 PSI N.O. (A2)
Y-AXIS AIR BRG PRESS. (MEASURE PRESS. HERE)
Z-STG HSG AIR BRG PRES
SOL. VALVE L1
VARIABLE RESTRICTOR AIR LOGIC F-2822-20
FINGERS CYLINDER
BIMBA 010.5 (MOD) 7/16 BORE 1/2 STROKE SPRING RETURN
COUPLING VALVE PLASTICS AA-1
Y-AXIS AIR BRG VAC
VAC SW
15 IN HG. N.O. (A1)
SOL. VALVE L3
SOL. VALVE L2
CHUCK VAC.
FINGERS VAC.
Z-STG HSG AIR BRG VAC
LEGEND: TYGON TUBING
1/8 ID x 1/4 OD
1/16 ID x 1/8 OD
CLAMP UM 3173
CLAMP 5000-9

REV.	E.C.NO./CHG. DESCR.	DATE	BY
1	PRC 710-1	1/24/80	RGB
2	PRC 710-27	3-31-80	JDC
3	PRC 710-130	5-23-80	RGB
4	PRC 710-543	12-5-80	FSR
5	PRC 710-570	1-14-81	DRD
6	PRC 710-672	3-10-81	DRD
7	4245	5/25/81	RT

NOTES

1. ALL PART NOS. FOR REFERENCE ONLY.
2. FITTINGS 10-32 THD x APPROPRIATE BARB UNLESS OTHERWISE INDICATED

THIS DRAWING HAS BEEN FURNISHED BY TELEDYNE TAC. THE INFORMATION AND KNOWHOW THEREON MAY NOT BE USED OR THE DRAWING REPRODUCED WITHOUT THE WRITTEN PERMISSION OF TELEDYNE TAC. ALL REPRODUCTIONS, IN WHOLE OR IN PART, INCLUDING VENDOR'S SHOP DRAWINGS MUST BEAR THIS STATEMENT OR MAKE REFERENCE TO IT.

DRN. SD Luther DATE 1-2-80
CHK. TRLP DATE 6-1-81
APPR. TH DOS DATE 6/2/81

LIMITS UNLESS SPECIFIED: .XX = ± .010 | FRACT. = ± 1/64 | ANG. = ± 30 MIN. | .XXX = ± .005 | MM. = ± | SURF. =

DO NOT SCALE DRAWING OR PRINT. REMOVE ALL BURRS, SHARP EDGES.

SCALE —

FIRST USED ON: NL/A111753

PRODUCT: MARK 710

DRAWING TITLE: PNEUMATIC SYSTEM SCHEMATIC

MATERIAL:

TREAT/FINISH:

DWG. NO. B111752

SHEET 1 OF 1

TELEDYNE TAC
WOBURN, MASSACHUSETTS 01801 U.S.A.

TT-8/1